A POLYPERIOD ANALYSIS OF FINANCIAL PERFORMANCE WITH ALTERNATIVE RESOURCE ENDOWMENTS, CREDIT RESTRAINTS, AND ORGANIZATIONAL FORMS

By

CHARLES BRITT MOSS

Bachelor of Science in Agriculture

Oklahoma State University

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Thesis Approved:

James D. Clafton
Thesis Adviser

Francis M. Epplin

Ross O. Love

Norman N. Durham
Dean of Graduate College

PREFACE

Corporate and sole proprietorship organizations were compared for financial performance. The data for comparison are generated by the simulation of financial activities in a polyperiod programming framework. The results of the simulation for each firm size and organizational type could then be compared to determine the preferred organization on grounds of growth and wealth. The final analysis considered in the study involve changes in credit policies and initial debt to asset position.

I wish to express my gratitude to all that have assisted me through my studies at Oklahoma State University. I am especially indebted to my major advisor Dr. James Plaxico for his guidance in research and writing, along with his council on coursework, and general concern.

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TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

CHAPTER I

INTRODUCTION

Sole proprietorship and corporate ownership represent two alternatives for legal organization of a business entity. The corporation allows for separation of ownership and management, and limited liability for owners. The sole proprietorship allows for tighter control of the assets. The corporate characteristic of limited liability and separation of ownership and management affect firms outside of agriculture, but generally does not affect agriculture or small businesses outside agriculture to the same degree.

A significant difference in sole proprietorship and corporate control for agricultural firms relates to income tax paid by the firm and its owners. If a producer chooses to organize as a sole proprietorship, the earnings are taxed once for income earned. Organization of the firm as a corporation may result in double taxation of income earned by the entity.

The double taxation of corporate income is not as detrimental as it first seems. Corporate tax rates are often lower than those for an individual. This may allow a rapid accumulation of capital in the corporate firm. Certain deductions are also available to the corporation, that lessen the burden of double taxation, such as the deductability of the owners salary and certain fringe benefits. Since

tax considerations impact cash flow, income, and ultimately wealth questions are raised about the "best" form of organizatin to meet producer's financial objectives, where objectives of the firm are defined both by the economic well being of the owner and the viability of the organization given alternative scenarios with respect to tax credit, and financial policies. The purpose of this research is to estimate the changes in wealth for both forms of legal organizational firms given selected scenarios. Analyzing changes in wealth can indicate changes in structure for agriculture, the marginal value of resources, and the real cost of present consumption.

Objectives and Hypothesis

The primary objectives of this study make necessary the construction of an empirical model such as multiperiod linear programming for the purpose of simulating growth through time of both corporation and sole proprietorship ownership forms. The primary objectives of the study are:

1. Quantify wealth accumulation for each form of legal organization, corporation or sole proprietorship, given selected scenarios.
2. Determine how changes in credit policies impact on other financial performance of each form of legal organization in the same way.

Hypotheses to be tested include the conceptual hypothesis that a model can be constructed to simulate the growth of a firm under alternative legal forms of organization. The primary hypotheses, given the standard of testing the null hypotheses, are:

1. Firms under corporate and sole proprietorship legal organizations yield the same wealth and grow at the same rate, other things equal, and
2. Changes in credit policies impact both forms of legal organization equally.

Procedure

The major objective of this study is to evaluate the performance of a farm firm under alternative ownership forms. To accomplish this evaluation of performance a linear programming model was constructed. The subprocedures for the construction of the model are 1) determine the appropriate measure or measures of performance, 2) gather data for representative farm sizes in the region under study, 3) construct interperiod transfers for equity and resource availability, and 4) define tax accounting procedures.

The polyperiod is used to estimate the impact on growth of ownership form. The criterion used to measure growth is resource control. Other factors considered include the present value of cash flows resulting from the operation over the five year target period. The same measures are employed to evaluate the differential impacts of alternative credit policies on the organizational forms.

Literature Review

One alternative for studying the equity forms can be found in Brock, LaDue, and Smith. Their study deals with the "nuts and bolts" of corporate structure and is a purely qualitative approach. Even though it is qualitative, important considerations are raised such as

the cost of incorporation, corporate tax structure, and credit status. Each point is important and together they provide a good picture of corporate advantages and disadvantages over the sole proprietorship. However, the study does not provide a quantitative analysis of the costs and returns cited. Other sources of qualitative evaluations include textbooks such as Barry, Hopkin, and Baker.

The other extreme in analysis can be found in Carrihan, Johnson, and Baker. Here the emphasis is on quantitative analysis of numbers and sizes of corporate firms in Nebraska. The report is helpful from a descriptive viewpoint, but does not address the problem posed in this research from a predictive mode of analysis.

Other work in the field of corporations in agriculture include analyses of corporations as an estate planning tool (Looney). Such work can be quantitative or qualitative, but usually focuses on the qualitative aspects because of the diverse situations of producers. Such work is helpful to farmers near retirement age, but does not address the operational needs of an ongoing expanding entity. The present study emphasizes the operational aspects of corporations in agriculture in a quantitative sense.

CHAPTER II

CONCEPTUAL MODEL

The theoretical basis used in this study is presented in this chapter. The first section includes an examination of definitions of finance as a basis for developing the primary financial questions posed in this study. Next, an examination of wealth as an economic and financial objective is considered. The final section of the chapter includes an examination of the concept of dynamic modeling consistent with the definitions of finance and wealth developed.

Definitions of Finance

There exists a broad spectrum of definitions of finance. From a layman's point of view, finance is defined as "money or other liquid assets of a government, business, group, or individual" (Merriam-Webster). From this definition, one can derive the idea that finance deals with funds. However, the layman's view does not depict the basis for the study of finance. The layman's view relates more to accounting than to finance. The subsequent paragraphs will explore definitions given by writers in the field of finance. Each definition will add clarification to a general definition presented at the end of this section.

Where do funds originate? Most finance textbooks place emphasis on the corporate world. As a result the definitions usually

are vague on the source of funds. One text book definition is " ... planning for, acquiring, and utilizing funds in ways that maximize the efficiency of the firm" (Weston and Brigham). Typically in the corporate world there exists three sources of funds, of (1) sale of capital stock, (2) sale of bonds, and (3) retained earnings. In dealing with smaller corporations and sole proprietorships the primary concern is with equity and borrowed capital and income from operations. In defining finance, Western and Brigham state that acquiring and utilizing funds is not the only facet of finance. Finance also involves planning in order to maximize the wealth of the firm, or firm's ownership.

In a highly positivistic sense finance involves how individuals use funds.

> The individual's financial problem is to maximize his or her well-being by appropriately using the resources available. Finance deals with how individuals divide their income between consumption and investment, how they choose from among available investment opportunities, and how they raise money to provide for increased consumption and investment (Schall and Haley).

From this definition one can visualize both the scope and objective of the discipline of finance. The objective loosely stated is very similar to the consumer and/or producer objective in economics. The economic objective of consumers, simply stated is: "Maximize utility subject to a budget constraint" (Henderson and Quandt, p. 13). Once the objective has been determined, it is proper to focus on how an individual allocates resources between consumption and investment to maximize well being.

Most economic theory is developed in static terms. However, the study of investments implies that time does exist. In the next

section the concept of wealth is explored in greater detail, but for present purposes wealth is defined as a measure of well being that considers the time dimension.

Keeping each component in mind, finance may be defined as the study of planning for, acquiring, and allocating funds across various investment opportunities and consumption in a way that maximizes the well being of an individual or firm through and over time. This definition assumes that funds are limited and the desire of the individual for wealth is insatiable.

The definition of finance allows the basic question: How does an individual allocate his or her resources through time to maximize well being?

Wealth

The literature provides no single definition of wealth. The accounting view of wealth is predictably objective and static "... owner's equity is a residual claim to the assets remaining after debt to creditors has been discharged" (Walgenback, Dittrich, and Hanson). To achieve objectivity, accountants value assets and liabilities based on historical cost. The accounting definition of wealth combined with the financial objective of maximizing wealth, leads to a strategy of maximizing profits in each period.

In the study of corporate finance "Shareholder wealth is measured by the market value of the corporatives stock" (Gup). Problems with this definition arise because firms often do not have access to all financial markets. It is difficult to find what the market price would be for a 1/100 share of Joe's Pig Farm. Another

question relates to how the market values an investment. Is an investor better or worse off if he or she pays $15 for an equity share in an enterprise. Again this appears to relate back to this study's definition for finance.

Gould and Ferguson offer a definition of wealth that includes several useful features. The Gould and Ferguson definition emphasizes utility theory:

> suppose that (1) each individual has an endowment of apples in each period (E_0, E_1) but these endowments are not necessarily the same for all individuals and (2) each individual faces a market price, ρ , which represents the number of apples that must be paid this period in return for apples next period.
>
> By selling all E_1 claims to next periods apples, the individual can have E_0, + ρ E_1, apples for consumption this period... We refer to the quantity E_0 + ρ E_1 as the present value of endowment stream, or wealth (Gould and Ferguson).

This definition implies that wealth involves time contrary to the standard static economics assumption of timelessness. Wealth is a function of consumption, initial resource endowment, time, and current earnings which we shall interpret as net cash flows.

Further clarification on the value of ρ is required. Let us examine a mathematical definitions for wealth. Defining C_t as the consumer's total expenditure on commodities in the t^{th} period.

$$C_t = \sum_{j=1}^{n} p_{jt} q_{jt} \qquad t=1....T \tag{2.1}$$

and further assume utility as a function of each of these consumption bundles through time.

$$U = V(C_1, \ldots, C_T) \tag{2.2}$$

The consumer's time-substitution rate is then

$$\frac{\partial C_\tau}{\partial C_t} = \frac{V_\tau}{V_t} \qquad t, \tau = 1, \ldots, T \tag{2.3}$$

which is quite literally the rate of commodity substitution with time separating the bundles. Henderson and Quandt further define the minimum premium as the consumer's rate of time preference for consumption in period t rather than τ is:

$$\eta_{\tau\gamma} = -\frac{\partial C_\tau}{\partial C_t} - 1 \qquad t, \tau = 1, \ldots, T_{\gamma > \tau} \tag{2.4}$$

(Henderson and Quandt p. 327).

The rate of time preference is the rate at which a consumer would be willing to trade one period's consumption for another. Joining this concept with Gould and Ferguson definition of wealth one defines wealth as:

$$E_0 + [1/(1 + \eta_{01})]E_1 \tag{2.5}$$

Under this definition an individual would be indifferent between E_0 and E_1, where

$$E_1 = (1 + \eta_{01})E_0 \tag{2.6}$$

The purpose of this exercise is to point out two key elements of wealth. 1) Wealth is a function of future funds (or consumption bundles) available to the individual and 2) the relative worth of future bundles are dependent on the rate of time preference.

Although the basic idea of wealth can be stated in terms of income flows and the rate of time preference (discount rate) greater insight into wealth can be gained by contrasting profit and wealth.

> ...the distinction between profit maximization and capital value or wealth maximization is that the latter is required to pay close attention to four important aspects of analysis: first, the timing of the expected receipt components of the projected income stream; second, the quality of the income stream, or the relevant degree of risk or uncertainty attaching to income expectations; third, the possible variation in income receivers' attitudes to the quality of income, or to risk and uncertainty, and the manner in which such attitudes or predictions may be analyzed under a definable utility function; and finally, the choice of an appropriate discount function or factors, and the method by which income receivers time preferences and risk preferences should influence the reduction of expected value to present or capitalized values (Vickers).

Two of Vicker's aspects of capital value (first and last) are simply restatements of the previous definition, wealth is a function of the timing of receipts and the rate of time preference. The addition to the concept of wealth made by Vickers is that wealth is also a function of risk and the decision maker's attitudes toward risk. If the individuals were risk adverse, and the prospective investments have equal expected rates of returns, then risky investments contribute less to his or her wealth than risk free investments. Expressed in another way, the discount rate for a risky investment would be greater than for a less risky investment, causing the investor to demand a higher return for the risky investment.

For the purpose of this study all returns will be considered equally risky so the later concept will not be applied. However, from the financial framework the perceived risk and ones attitude toward risk do influence the individual's wealth. For the purpose of this study, wealth will be defined as the sum of anticipated yearly cash flows divided by the discount rate (or rate of time preference) plus the initial endowment.

Dynamic Modeling

The preceding sections have discussed time, but the discussion was limited to how time defines wealth. Although the use of time in this manner is basic to the definition of the objective function, time is more basic to the study than the simple definition of wealth. Time also determines the resource base. Consumption foregone in the present period allows the producer to expand the resource base allowing greater production in future periods to come.

> By omitting time as a variable, one may greatly simplify conceptual and empirical models. At the same time, one tends to ignore (assume away) certain practical important problems of production timing, capital acquisition and accumulation, transitory resource efficiency, and the impact of a decision in one time period on production opportunities and choices during subsequent periods (Plaxico p.12)

This view of dynamics goes further than the wealth concept of time. This section develops a conceptual model of dynamics by first reviewing the traditional economic analysis of maximizing profits, second a static analysis of wealth, and finally a dynamic analysis to maximize wealth.

Under static economic theory, the resources of a producer are fixed and the producer organizes resources in a way that maximizes profit. Consider a producer with a fixed resource base who can produce two outputs (q_1 and q_2). Mathematically one could derive a production possibility curve for the producer such that:

$$H(q_1, q_2, X) = 0 \tag{2.7}$$

where X is the resource base (Henderson and Quandt p. 93). Which could be rewritten (such that h is a quasi-strictly convex function):

$$X = h(q_1, q_2) \tag{2.8}$$

By differentiating the function one can define the rate of product transformation.

$$dX = h_1 dq_1 + h_2 dq_2 \tag{2.9}$$

since $dX = 0$

$$RPT = -\frac{dq_2}{dq_1} = \frac{h_1}{h_2} \tag{2.10}$$

Equation 2.10 defines the rate at which one must sacrifice q_1 to gain q_2. Mathematically the optimum calculation can be defined, given constant prices, by:

$$F = P_1 q_1 + P_2 q_2 + \mu(X - h(q_1, q_2) \tag{2.11}$$

$$\frac{\partial F}{\partial q_1} = P_1 - \mu h_1 = 0$$

$$\frac{\partial F}{\partial q_2} = P_2 - \mu h_2 = 0$$

$$\frac{\partial F}{\partial \mu} = X - h(q_1, q_2) = 0$$

Solution of the system of first order equations yields optimal quantities of q_1 and q_2 given the price p_1 and p_2 and the resource. The first two partials yield the optimality conditions for the first order conditions (assuming the second order, concavity, conditions and the third order, long run stability conditions, are met).

$$\frac{P_1}{P_2} = \frac{h_1}{h_2} = RPT \tag{2.12}$$

This procedure is useful to solve the questions involving a choice of two alternative enterprises such as cattle versus wheat when the resource base is fixed.

The static analysis of wealth is very similar to the production model of the previous section. In the static wealth analysis q_1 would represent capital accumulation and q_2 would represent present consumption. Differences occur with objective criteria. In a production framework the prices are set externally and the criteria of maximization is simply:

$$\pi = p_1 q_1 + p_2 q_2 \tag{2.13}$$

If one considers a producers trade-off between current consumption and capital accumulation external prices lose their importance in the objective. The objective becomes one of maximizing the producers utility ($U(q_1, q_2)$) subject to the production possibilities frontier ($X-h(q_1, q_2)$). (Figure 2.1).

$$F = U(q_1,q_2) + \mu (X - h(q_1, q_2)) \tag{2.14}$$

The constraint is the production possibility curve. Solving the partials

$$\frac{\partial F}{\partial q_1} = \frac{U}{q_1} - \mu h_1 = 0 \tag{2.15}$$

$$\frac{\partial F}{\partial q_2} = \frac{\partial U}{\partial q_2} - \mu h_2 = 0 \tag{2.16}$$

$$\frac{\partial F}{\partial \mu} = X - h(q_1,q_2) = 0 \tag{2.17}$$

solving the first two partials yields

$$\frac{\frac{\partial U}{\partial q_1}}{\frac{\partial U}{\partial q_2}} = \frac{h_1}{h_2} \tag{2.18}$$

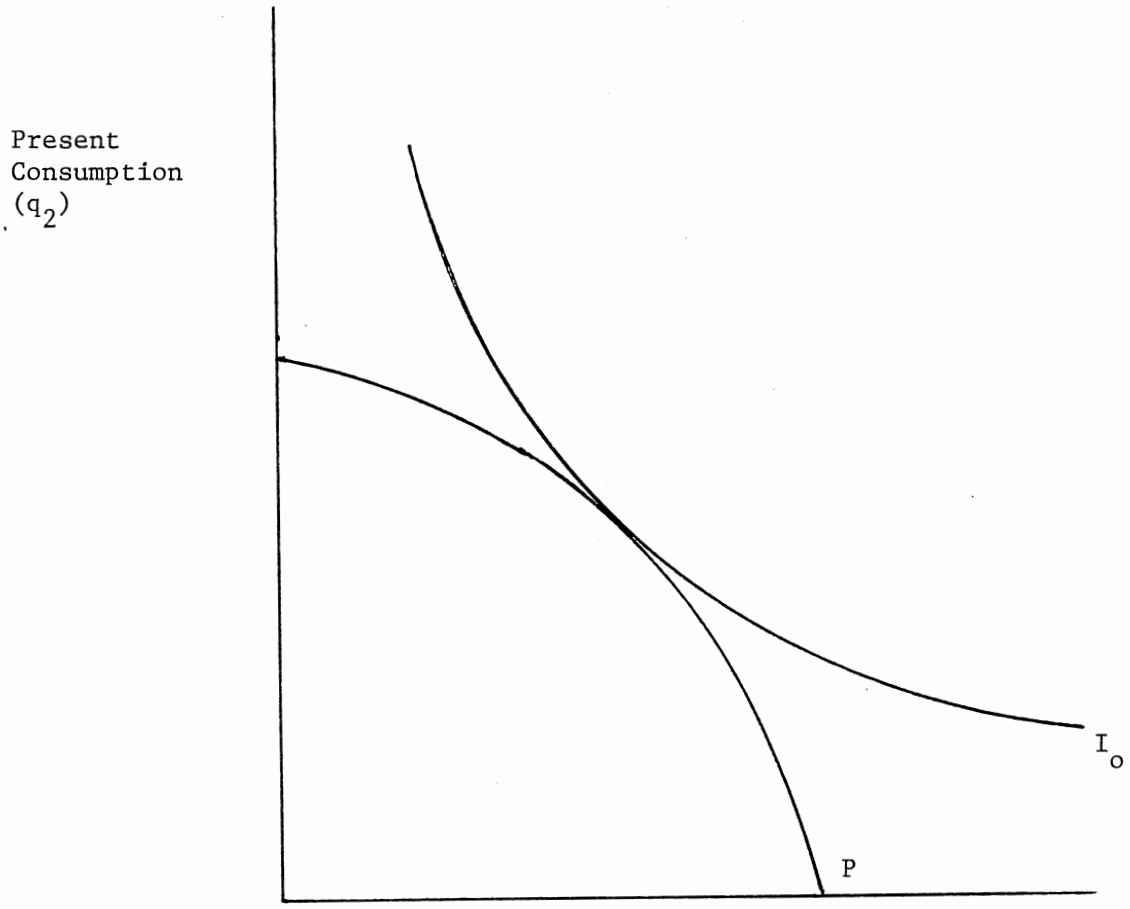

Figure 2.1. Static Analysis of Present Consumption and Capital Accumulation

The first part of the equality is the producers rate of time preference (see Equation 2.3). The basis of the static analysis of wealth is that the producer's rate of time preference has to equal the rate of product transformation between current consumption and wealth.

Time dynamics adds to this framework by assuming that the resource base for the current period is determined by the previous year's capital formation and the previous year's consumption.

$$X_t = f(X_{t-1}, q_{1,t-1}, q_{2,t-1}) \tag{2.19}$$

A mathematical function would be (Dorfman, Samuelson and Solow)

$$G + F(U(q_1,q_2);q_{1,t-1},q_{2,t-1}) + \sum_{t=1}^{T} \lambda [F(Uq_1,q_2); q_{1,t-1}) q_{2,t-1}) - h(q_1,q_2)] \tag{2.20}$$

$$G - F_T + \Sigma\lambda_t[F_t - h(q_1,q_2)] \tag{2.21}$$

The latter part of the equation imposes the restriction that all previous choices of wealth versus consumption have been met and this determines the resources to be allocated in the present period. The functions objective G still represents wealth but in a more realistic fashion than earlier stated by the addition of time as a dimension rather than a variable.

At this point it might provide insight to depart from mathematics into graphical analysis Figure 2.2 (Plaxico p. 14). The optimum combination of present consumption (q_2) and capital accumulation (q_1) in time period t is determined by the tangency between I_t a given indifference curve in period t and P_t the production possibility curve in period t. The optimum yields q_2 which is consumed and q_1 which adds to the resources available for

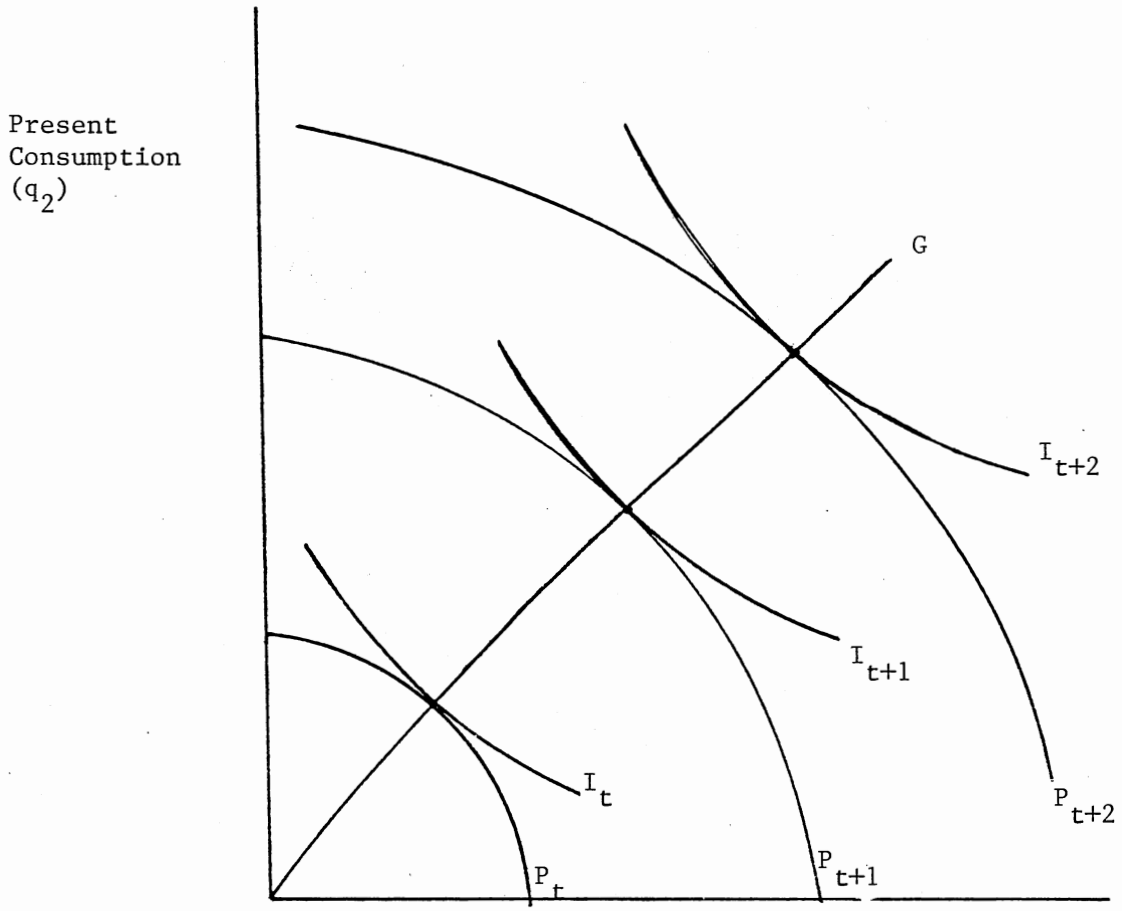

Figure 2.2 Dynamic Analysis of Present Consumption and Capital Accumulation

production. With the additional resources the production possibility relationship for the t+1 period expands to P_{t+1} at which the same decisions are made. The loci of tangencies map a growth path which traces the combinations of present consumption and capital formation through time.

The advantage of using a time dynamic model is the assumption that resources are fixed is no longer required. A firm can add an acre of land through debt or equity financing and use that acre to produce cash flow. In essence the time dynamic model allows the producer to allocate production between capital and consumption in each period based on the allocations in the preceding periods. It allows more realistic financial analysis than static models.

CHAPTER III

EMPIRICAL MODEL

In this chapter the empirical model used is examined with respect to its components and underlying assumptions. Next a representative year (or subcomponent) of the model is presented to demonstrate the internal relationships.

Basic Multiperiod Linear Programming Structure

Multiperiod linear programming was selected for use in this study because of its consistency with the dynamic conceptual model in Chapter II. As the name implies, multiperiod linear programming is a form of linear programming. Since the model is a form of linear programming, the standard assumption of positive variables and linear functions apply; however, these assumptions are not overly restrictive. To better understand the linkage between the conceptual and the empirical model the Linear Programming model for the conceptual finance models is presented before the model components.

Chapter II presented a static model for the maximization of wealth. This model could be rewritten in Linear Programming form as:

$$\text{Maximize } C'X = Z \tag{3.1}$$

Subject to

$$B \geq A'X \tag{3.2}$$

$$X \geq 0 \tag{3.3}$$

where C represents a vector of wealth coefficients for the various enterprises, B represents a vector of the resource constraints, A represents a matrix of input-output coefficients, and X is the vector of enterprise levels (Plaxico p.13).

The movement from single period to multiple period is achieved by allowing the matrix to be divided into components (submatricies) each representing a different operating period (Martin p. 14):

$$A = \begin{bmatrix} A_n & & \\ & A_{t+1} & \\ & \cdots & \\ & & A_n \end{bmatrix} \qquad (3.4)$$

The true dynamic nature of this method can be found in the structure of the submatricies. If one column (activity) affects two periods (submatricies) then the model can be said to be dynamic. If there are no links between the components then the resulting solution would be no different from solving each component separately (Morton p. 108). The present study allows for several variables with dynamic effects, for example, land can be purchased in a particular period and used in subsequent periods. Since periods are linked with appropriate transfer activities, the program can be structured to maximize over a number of periods. The polyperiod programming model has an objective function that is consistent with the idea of time. The objective function for the model is to maximize wealth defined as:

$$W = \sum_{i=1}^{5} \sum_{j=1}^{S} \frac{C_2 X_{ij}}{(1+D)^i}$$

Where C_j is the net cash flow for enterprise j, i_j is the level of activity j in the i^{th} period and D is the discount rate (or rate of time preference). With some differences noted in the next section the preceding equation depicts the value of each enterprise in the model.

Assumptions of the empirical model include zero inflation, deterministic prices, revenues, costs, lending rates, and constant increases in land values of four percent. Other assumptions will be stated as their need becomes apparent, but the above assumptions are of major importance. The assumptions listed are used merely to limit the scope of this study. The implications of alternative assumption could, of course, be analyzed.

Model Components

A multiperiod linear programming model can be divided into three components each of which implies not only differences in operational questions but also differences in time frame. The components are technical constraints, financial and/or economic constraints, and accounting relationships. The technical constraints concern primarily the production activities which are defined on an annual basis. In this section the model determines the level of the production activities consistent with the physical resource structure imposed through the dynamic activities. A list of variable names is provided in Appendix B.

Appendix D presents a picture of a single year and an overview of the yearly interactions. The financial section of the model addresses the basic questions relating to the allocation of funds given one's needs of capital. The final component of the model is the

accounting component. This section can further be divided into the tax component, the cash flow component, and the financial statement component. Each of these subsections is explained more fully later. Each of the components constrain production suggest a unique time frame and purpose. The primary area of study is the financial component, however, explanations and detail are provided for the other section to allow study of more classical questions (such as the marginal value of land).

Technical Constraints

As indicated in the preceding paragraph, the technical constraints comprise the dominate portion of most standard L. P. models. The primary question answered is, given limited resources, known alternatives, and a defined objective, what, how, and how much should be produced? The alternatives considered have dynamic implications, e.g. land could be purchased, but once determined by the transfer sections the question takes on a more ceteris paribus framework. As an example, let us consider the land constraint:

$$WO1 + CO1 + AO1 + GO1 < LB1 + LOWNO \tag{3.5}$$

By arranging terms the L. P. equation is,

$$WO1 + CO1 + AO1 + GO1 - LB1 - LOWNO < 0 \tag{3.6}$$

Under this constraint the amount of wheat on owned land (WO1), cotton on owned land (CO1), alfalfa on owned land (AO1), and grazing on owned land (GO1) are limited to be less than the sum of land owned initially (LOWNO), and land purchased in period 1 (LB1). Other equations that depict constraints in this fashion are land rented in period 1 (LREN1), capital used for production in period 1 (CAP1), machinery

required in period 1 (MARE1), and animal unit months required in period 1 (AUM1). Each of these equations has dynamic implications not directly related to the technical constraints.

In this section it might be helpful to point out that there exists certain gray areas where it will be difficult to determine if a constraint falls in one section or another. When these are encountered the constraint in question will be classified on the basis of its primary function. A good example of this point can be found in this section. The constraint in question is cash flow (CFI). Cash flow can be considered a technical constraint in that to operate through the year a producer must maintain adequate cash flow for family living expense. The basis for division becomes apparent in the fact that family living need not be financed from the current year's operation alone, but it can be obtained through the use of debt or equity capital representing either future or past earnings. Underlying this point is that cash flow is an outflow that must be accounted for not a constraint to production.

The constraint for owned land as stated in the previous section is:

$$\text{LAND1:}\quad W01 + C01 + A01 + G01 - LOWN0 - LB1 < 0 \qquad (3.7)$$

Each of the production activities (W01, C01, A01, G01) require one acre of land. A related constraint is land rented in period 1:

$$\text{LREN1:}\quad WR1 + CR1 + GR1 - 2(LOWN0) - 2(LB1) < 0 \qquad (3.8)$$

For each acre of land owned in a period, the producer is permitted to rent two additional acres. The difference between LREN1 and LAND1 is the exclusion of alfalfa from the LREN1 equation. The exclusion has its basis in the high establishment cost of alfalfa. A renter with a

typical short term lease is hesitant to consider alfalfa as a crop on its basis in the high establishment cost of alfalfa. A renter with a typical short term lease is hesitant to consider alfalfa as a crop on rented land for fear of losing the investment. The final land constraint deals with the amount of owned land a producer can plant in alfalfa. As a measure of risk management the model will allow the producer to plant only half of owned land in alfalfa. The constraint is USER:

$$USER1: \quad AO1 - .50(LOWN0) - .50(LB1) < 0 \qquad (3.9)$$

Similar constraints could be added to manage the risk associated with other enterprises in a portfolio context.

Other constraints in this section include operating capital (CAP1) and machinery required in period 1 (MARE1). To produce one unit of an enterprise, inputs must be purchased during the year. Short-term debt is assumed as the primary source of operating capital. The constraint is formally stated as:

$$CAP1: \quad 24.445(WO1) + \ldots - BS1 < 0 \qquad (3.10)$$

The coefficients in this row are the operating capital requirements of each activity. BS1 has the objective value of the yearly interest charge discounted to time period 0. In like manner, each production activity requires a certain machinery input and with the assumption that a dollar worth of machinery can be used in any production activity, can be stated:

$$MARE1: \quad - MACB0 + 88.68(WO1) + 88.68(WR1) + \ldots - MAPU1 < 0 \qquad (3.11)$$

Given the usual Linear programming assumption that machinery is perfectly divisible.

Given the basis for the constraints, an examination of the sources of the input data is appropriate. In all cases the technical coefficients and prices are from the Oklahoma State University Enterprise Budgets. The L. P. objective values were computed by discounting the cash flow to time zero. As an example, the objective function value for an acre of wheat on owned land in period 1 is computed by:

$$OBJ1 = \frac{26.77}{(1+D)^1} \tag{3.12}$$

As stated above, the $26.77 is the Oklahoma State University Budget system estimate of returns to labor, machinery, operating capital, overhead, risk, and management for the owner of wheat on owned land. The machinery requirements are not explicitly provided in the budgets, one must derive the machinery requirement for each activity. The specific part of the budget one is interested in is the interest expense. The interest expense on the enterprise budgets is computed by multiplying the average investment by the interest rate. Since the interest rate is explicit on the budget we can derive the machinery requirement by dividing the average machinery investment by the explicit interest rate.

The primary purpose of this study is to examine the effects of alternative equity forms on growth, this technical model is notably less detailed than many other L. P. models. However, a suggestion for further study is that the model be expanded to include such questions as the value of labor to part time farmers or the effects of constrained labor on growth of the farm.

Financial Component

The dynamic aspects of multiperiod linear programming models can be traced largely to their financial components. By the acquisition of land and machinery, or the issue of debt and use of equity, the past decisions and operations determine the resources available for use in a particular production period. If it were not for linkages between the periods of a multiperiod linear programming model, the solution would be equivalent to solving each period separately.

There are two basic constraints in this section, equity in period 1 (EQT1), and long-term financing in period 1 (LNTF1). The equity section represents the capital that can be supplied by the owner. There are basically two ways that the owner can use equity capital to acquire long-term debt. The first way is to forego the transfer of cash to equity in favor of using cash for long-term financing. This method is accomplished indirectly through the cash flow equation. The second method involves using equity as a borrowing reserve to support debt. The sources of equity include 1) old equity transferred to the present period (ETO), 2) equity released from the borrowing reserve by payment of principal (a component of a borrowing column), and 3) equity formed by the current period's operation (CF-E1). Given these activities the equity row can be written:

$$a_1 (BLO) + a_2 (BIO) + ETO + CF\text{-}E1 - .25 (BL1) - .50(BI1) - ETO < 0 \qquad (3.13)$$

Where a_1 and a_2 are the principal payment on debt multiplied by the reserve requirement for that debt. The .25 and .50 are the reserve requirements for long term and intermediate term debt respectively.

The long term financing constraints dictate how debt or equity is acquired and used. The users of funds acquired in the long term financing row are buying land or buying machinery. The sources of capital include 1) the issue of long term debt, 2) the issue of intermediate term debt, and 3) the use of cash generated in the current period. The constraint (LNTF1) can be expressed as:

$$666(LB1) + MAPU1 - BL1 - BI1 - CF\text{-}F1 < 0 \qquad (3.14)$$

Where the funds requirement to purchase one acre of land is $666 per acre and the machinery and land are perfectly divisible by dollar increments.

A financial variable that is not included in the two primary financial constraints, that meets the financial framework, is TEST1. This variable allows the producer to acquire debt in the first year, given adequate equity, to offset a negative cash balance in year 1. The debt will be paid off in period 2 at a cash flow of debt plus interest. This transfer requires the use of 1.00 units of equity and serves as a transfer from period 1 to period 2 by borrowing. TEST1 also has tax accounting implications to be discussed later.

In order to better understand the column values for the activities in the financial sections the activities are divided into two classes; uses and sources of funds. The uses of funds represent the purchase of productive assets (land and machinery). The coefficients in the criteria function with respect to assets are determined by discounting the equity flows associated uniquely with the asset to time period zero. For example land produces an equity flow in the model by increasing its terminal value (by the assumption of a constant appreciation rate of 4%). The objective function value

for land is then the terminal value for land discounted to time period zero.

$$OBJ1 = \frac{666(1.04)^4}{(1.05)^5} = 610.466 \qquad (3.15)$$

The objective function coefficient for capital is somewhat more complex simply because the equity flows associated with machinery are more complex. Through time the machinery value (hence the equity value) declines due to depreciation. The value of the machinery in the terminal period will partially offset this decrease. The resulting equation can be written as:

$$OBJ1_{MAPU1} = -\sum_{i=1}^{5} \frac{DEP_1}{(1+D)^i} + \frac{Val_5}{(1+D)^5} \qquad (3.16)$$

Which ties the idea of decreasing equity and the terminal value together.

The remaining columns are debt columns which have cash flow as well as financial implications. From a cash flow viewpoint the acquisition of debt imposes the restriction that cash flow be great enough to meet both principal and interest payments on the debt. From the equity point of view the debt only has one component, interest. The reasoning behind this assumption can be traced to accounting concepts. In an accounting framework trading one asset for another (cash for an increased claim on machinery or land) does not imply an expense. It is the use of the machinery (depreciation) that causes expense. Using this framework one would view the payment of principal as a savings activity. The objective coefficient for debt could then be expressed as:

$$OBJ1_{Dcbt} = - \frac{Interest_i}{(1+D)^i} \qquad (3.17)$$

where j is the issue period and N is the number of payments.

Accounting Constraints and Indentities

As stated earlier, the accounting constraints can be divided into tax, cash flow, and statement components. All of these components function to enforce accounting, financial, and tax indentities. For example the tax paid in period 1 (TAXP1), for the individual, guarantees that the amount of taxes paid is equal to the dollar amount of income in each bracket multiplied by the tax rate for that bracket.

$$.11(ITB21) + \ldots - ITAXP1 < 0 \qquad (3.18)$$

While most of the equations in this section have financial implications, the implications are indirect. For example, consider TAXP1 influences the financial constraints by influencing the cash flow row which in turn can cause a reduced amount of a cash to be transferred to equity or financing, or may actually cause borrowing to move a cash flow deficit this year to be moved to next year (TEST1). A point illustrated by this particular column (ITAXP1) is that even though an accounting row may not directly affect the financial constraints, it may assume an objective function value. ITAXP1 has a negative objective function value because it represents a real cash outflow.

Tax Equations

The tax section assesses income taxes to the producer based upon the income of that year (other taxes such as Social Security are not analyzed). Tax assumptions include the use of cash flow accounting to facilitate the linear programming framework. However, the model does not assume a constant tax rate, instead the tax rates and brackets used are those for years after 1983 (Internal Revenue Code). Other assumptions made to facilitate the linear programming structure include 17.5% declining balance for machinery owned and a corporate assumption that the individual receives only a salary from the corporation (versus a combination of salary and dividends).

The structure of the tax equations for a sole proprietorship only includes one level. Each production activity contributes to the taxable income ($TAXI_i$) by its net cash flow. The debt activities decrease the taxable income by the amount of interest paid in a given year and machinery reduces taxable income by 17.5% of the machinery for depreciation. The preceding is summed and reduced to zero by a series of tax brackets (ITB11-IT151), each bracket implies a limit for that bracket to be discussed later. The general form of the equation can now be written as:

TAXI1 :26.79(W01) + ...- .14(BS1)-.175(MACB1)-ITB11... - IT151<0 (3.19)

Since each tax bracket is limited, with the exception of the highest bracket, a constraint is used to cause the model to go to a higher bracket. For example, the first tax bracket (ITB11) is the zero bracket amount for which the tax rate is zero. With the model

assumptions, a married couple with no other dependents, the limit for this bracket is $5,400 or:

ILM11: ITB11 <5400 (3.20)

For higher brackets all previous limits must be summed and subtracted to give the L. P. limit.

The equation that does the actual summary of taxes paid is TAXP1. TAXP1 sums the amount in each tax bracket multiplied by that tax bracket to yield ITAXP1, taxes paid by the individual in period one:

TAXP1: 0(ITB11) + .11(ITB21) + ... -ITAXP1<0 (3.21)

TAXP1 requires one unit of cash flow in period one and reduces the objective function by the discounted value of one dollar in one year.

The corporate tax equations are identical to the individual except its two level nature. The corporation recognizes taxable income from operations (CTAXI1) and pays taxes (CTAP1) through an activity TPC01. The taxes paid in the corporate model are determined by tax brackets CTB11 through CTB51 and, similar to the sole proprietor, these brackets are governed by limits CLM11-CLM41. An additional deduction is available for the corporation which isn't in the individual model; the additional deduction is operators salary (SA-F1). SA-I1 becomes the operators taxable income.

The individual section of the corporate model is the same as the sole proprietor model except that taxable income in the corporate model for the individual is his salary SA-I1. ITAXP1 under the corporate model affects IGIS1, individual gross income year one to be explained later, and to reduce both the corporate model and the individual model to a similar comparable base the objective function.

Cash Flow Equations

The cash flow equations impose equalities of cash sources and uses in a particular period and in a particular level. Their are three of these sources and uses of cash equations in any given period. The first is consumption (CNCO1). Consumption is used to set the family living requirements.

CNCO1: CN-T1 = 10,000 (3.22)

CN-T1 then affects the cash flow equation in period one (CF1) or individual Gross Income (IGISI) in period one for either a sole proprietorship or a corporation respectively. This will be deemed a costless transfer because it is simply consumption of goods at the some future period which by our definition implies no change in wealth.

The cash flow equation (CF1) supply equates the sources and uses of cash within a single period. It includes the income from the enterprises, the payments for debts, either consumption for an individual or salary for a corporate model and taxes paid. This equation also includes the ability to transfer cash from one period to another (CE1). In the corporate model IGIS1 perform the same function as cash flow equation for the sole proprietorship by equating salary to individual taxes paid and consumption.

Financial Statement Equations

During some forms of analysis it may be necessary to generate some balance sheet and income statement approximates. These approximations are available through some equations in the accounting component of the submatrix. Included are equations to generate gross

profit (GPSR1), other expenses (OESR1), net before tax income (NITS1), taxes paid (TA-P1), net after tax net income (NAST1), and other equations to generate an abbreviated balance sheet.

CHAPTER IV

INITIAL EMPIRICAL RESULTS

This chapter is concerned with the empirical results of the model described in Chapter III. The first section of the chapter presents assumptions regarding initial farm resource situations and initial lending policy. The results of the initial simulations are then presented. Finally, the variables used to study changes in farm resource situations and lending parameters are examined.

Initial Data

To select the sample farm sizes to be considered, the census data for the region were examined. Table 4.1 is taken from agricultural census data for the State of Oklahoma (Department of Commerce, Bureau of the Census). From these data a bimodal distribution of farm sizes appears apparent, with 8,783 farms in the 140-179 acre classification and 14,166 farms in the 260-499 acre classification. Sections and fractional sections are customary purchase blocks in Oklahoma. Thus the two representative farm sizes for these ranges is assumed to be 160 and 320 acre farms. To represent a large commercial farm an arbitrary choice was made. The large commercial unit is assumed to be a 1,120 acre farm.

Once the initial farm sizes were generated a financial balance sheet was defined for each size. Base balance sheet figures used come

TABLE 4.1

NUMBERS OF FARMS BY ACRES, OKLAHOMA, 1974

Number of Acres	Number of Farms
1 - 9	2,264
10 - 49	6,001
50 - 69	2,571
70 - 99	6,342
100 - 139	5,037
140 - 179	8,783
180 - 219	3,410
220 - 499	14,166
500 - 999	10,166
1,000 - 1,999	5,003
2,000 -	2,191

Source: Census of Agriculture 1974.

from Economic Indicators of the Farm Sector, Income and Balance Sheet Statistics 1980 (Economic Research Service p. 151), Appendix A (1) provides the representative balance sheets under the initial assumption. Each balance sheet in the initial structure has an extremely low debt to asset ratio. The debt to asset ratios of the firms found in the data are not equal among size classes. This fact along with the extremely solvent position of the firms, given motivates this study to adjust the initial debt to asset ratio. An arbitrary choice for a debt to asset ratio is 30 percent which should represent a firm with growth potential that will be affected by lending policies. Balance sheets adjusted to a 30 percent debt are presented in Table A(2) of the appendix. The transformation required to generate a 30 percent debt to asset balance sheet assumes the same asset structure and an equal percentage of long term and intermediate debt.

Lending Policies

The first simulation assumes an 80 percent debt to asset requirement for real estate and a 66 percent maximum debt to asset requirement for intermediate debt. The above rates are considered to be representative of typical commercial lending policies in the state at the present time. A 50 percent maximum debt to asset ratio is used as inter-period transfer borrowing. This ratio is fairly arbitrary, but does seem consistent with area practices. A market interest rate of 14 percent on all loans is assumed with an after tax discount rate of four percent.

In Chapter III the equations relating to equity requirements to

support debt are presented. This idea will be used to assume that the simulation conforms to lending policies. The parameters of the lending constraints are in terms of equity required to issue $1.00 of debt or:

$$E = A_1 D \tag{4.1}$$

$$A_1 = E/D = \frac{1}{D/E} \tag{4.2}$$

where E is equity, D is debt, and A_1 represents the equity required to support the debt acquired.

The resulting parameters represents the inverse of the required debt to equity ratio converting debt to asset ratios to debt to equity ratios:

$$D/A = \alpha$$

$$D = \alpha A$$

$$D = \alpha(D + \alpha E)$$

$$D = \alpha D + \alpha E$$

$$D(1 - \alpha) = \alpha E \tag{4.3}$$

$$A_1 = \frac{1-\alpha}{\alpha} \tag{4.4}$$

Where α is the desired debt to asset ratio. The lending parameters for the primary simulation are shown in Table 4.2.

The lending policies and lending ratios apply to both corporate and sole proprietorship firms.

Baseline Results Run

Initial results, given lending policies and yearly family living requirements of $10,000, $15,000, and $40,000 for 160, 320, and 1,120 acre farms respectively, are presented in Table 4.3. The output of

TABLE 4.2

INITIAL LENDING PARAMETERS

Type	Debt/Equity Coefficient
Long Term	.25
Intermediate term	.50
Inter-period	1.00

TABLE 4.3

RESULTS OF INITIAL RUNS

Terminal Wealth	160	320	1,120
Sole Proprietor	130,053.99	283,404.51	906,824.03
Corporation	(A)	279,023.17	915,227.67
Shadow Price of Equity	**160**	**320**	**1,120**
Sole Proprietor	.6420	.5925	.5332
Corporation	(A)	.6610	.6416
Shadow Price of Land	**160**	**320**	**1,120**
Sole Proprietor	1,267.85	1,214.30	1,141.26
Corporation	(A)	1,305.98	1,282.89
Shadow Price of Consumption	**160**	**320**	**1,120**
Sole Proprietor			
Year 1	2.0675	1.8948	1.7077
Year 2	1.7189	1.6148	1.4903
Year 3	1.4321	1.3752	1.3074
Year 4	1.2055	1.0340	1.0322
Year 5	1.0358	1.0340	1.0322
Corporation			
Year 1	(A)	3.0220	1.7077
Year 2	(A)	2.6326	3.5882
Year 3	(A)	1.9972	2.8135
Year 4	(A)	1.4646	2.1404
Year 5	(A)	.9697	1.5014

(A) Infeasible

the model is presented in Appendix C. As one would expect, farms with a larger initial resource base generate more wealth than units with smaller resource basis. Also as one would expect, as the initial position increases the marginal value product of equity, and the marginal value product land owned in period zero decreases.

The results of the initial runs indicate that the acreage required to make either a corporation or sole proprietorship equally attractive, under the stated loan policies and initial situation, is approximately 320 acres. Infeasibilities encountered in the solution process suggest that the 160 acre farm size is not financially viable as a corporation under the stated assumptions. At the 1,120 acre farm size, results indicate that the corporate structure results in a greater wealth accumulation than does the sole proprietorship.

Growth Path

As stated in Chapter II, the tangencies between the production possibilities frontier and the producer's utility curves form an optimal growth path. Chapter II addressed this growth path in terms of capital accumulation versus present consumption. The empirical growth path takes the form of land acquisition in the yearly sections of the model. Table 4.4 indicates the acreage acquired by each firm in a given time period under the given assumptions. The acquisition of land by the corporate firm is an increasing function with respect to time. The sole proprietorship acquires land at a more sporadic schedule with greater growth occurring in the last periods of the simulation. While the model does not yield an obvious reason for the difference in growth, the difference is attributable to some tax

TABLE 4.4

YEARLY ACQUISITION OF LAND

Sole Proprietor

Year	Acres	160	320	1,120
1		0	38.49	74.59
2		0	0	62.39
3		11.04	58.28	178.31
4		51.03	230.98	406.40
5		317.48	474.91	1,800.59
Total Acquired		379.55	802.66	2.522.28

Corporation

Year	Acres	160	320	1,120
1		(A)	64.78	245.71
2		(A)	76.42	340.82
3		(A)	111.92	465.66
4		(A)	160.80	668.31
5		(A)	375.42	1,600.40
Total Acquired			789.41	3,320.90

(A) Infeasible

aspect. In the next section the differential tax impacts are explored in greater detail, but at this point the the assumption is that differences in tax treatments comprise the only significant difference between the models. The graphic paths for owned land are presented in Figure 4.1 for the sole proprietorship and Figure 4.2 for the corporation.

The model indicates a greater rate of growth with an increase in the initial position. By comparing the corporate growth against the sole proprietorship growth in Figure 4.3 and 4.4, the model indicates that the growth path for firms under the same initial resource base but different organizations have very similar growth patterns. The point of deviation occur in later periods at which point the sole proprietor provides the most rapid growth in acres.

Impacts of Tax Differences

As indicated in Chapter I, there exist several theoretical differences between corporations and sole proprietorships. The significant differences for the purpose of this study, include only the tax aspects. One would hypothesize that without any tax parameters, the corporation and the sole proprietor models would yield the same solutions. However, differences do exist in tax treatments that affect the solution of the model under each legal form. This section will briefly explore the effects of those differences on the solutions.

Because of the two level structure of corporate taxation the transfer of tax deductions from the corporation to the individual is not allowed (the result is that under the corporate model the tax at

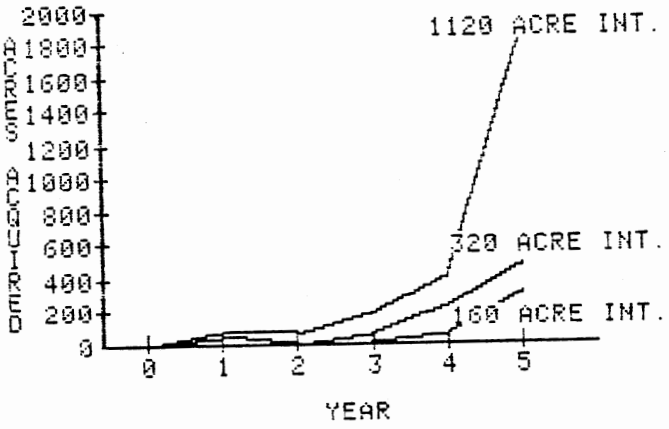

Figure 4.1. Acreage Growth Path for Sole Proprietorship

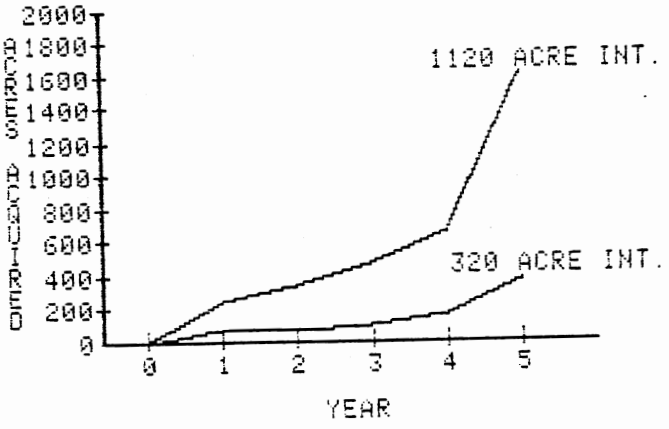

Figure 4.2. Acreage Growth Path for Corporations

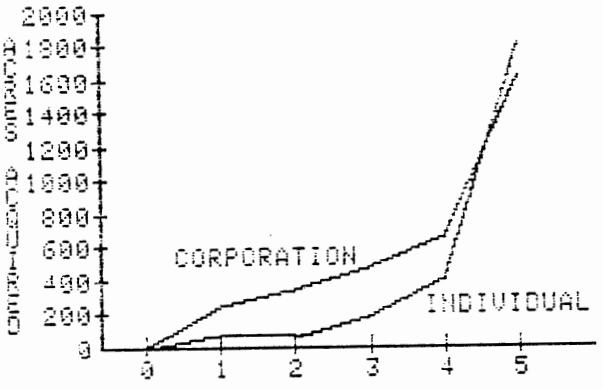

Figure 4.3. Corporate versus Sole Proprietorship growth paths at 1120 initial acres

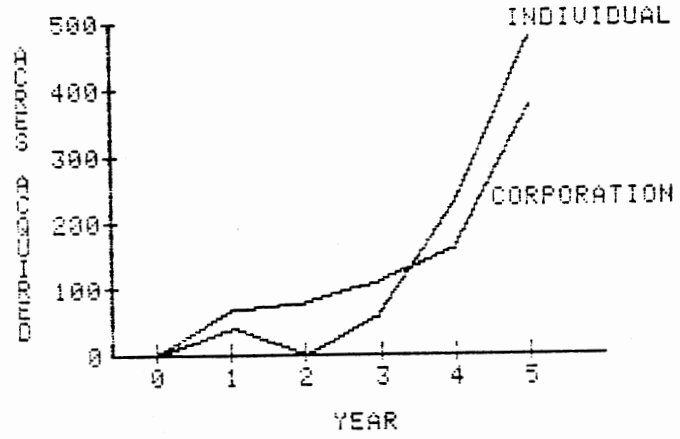

Figure 4.4. Corporate versus Sole Proprietorship growth paths at 320 initial acres

the individual level becomes a fixed cost). Due to the lack of transfer of tax preferences, solutions where a large portion of the operating expenses comprised of the producers salary, the solution yield, a greater tax flow than the sole proprietorship. The greater the tax flow the less wealth that can be accumulated leading to a preference toward the sole proprietorship form of organization.

Once the tax obligations incurred by the individual's salary have been met the firm's marginal tax bracket becomes the corporate tax schedule. Since the corporate tax rates (around the solution), are lower than individual tax rates (around their solution), the addition of an acre of land or a dollar of equity results in a greater after tax flow for the corporation than the individual.

The result of the preceding arguments are confirmed by the 320 acre results in Table 4.3. The wealth for the 320 acre solutions represents assumptions where the yearly operating flow goes mostly to the individual for consumption so:

1) the anticipated wealth is greater for the sole proprietor versus the corporation, and
2) resources have a larger marginal value for the corporation than the sole proprietor.

Explanation of Consumption

The yearly consumption shadow prices presented in Table 4.3 encourage questions about the linkage between the shadow price of consumption and the marginal value product of equity. This section traces the relationship involved and explores how the relationship affects the solution of the system.

A logical place to start is to determine the effect of a unit of consumption on the solution. If one dollar is added to consumption in the sole proprietorship model, it increases the cash flow requirement for that particular period by one dollar. By examination of the 160 acre solution one can determine that the shadow price for consumption in a particular period is equivalent to the shadow price of cash flow in the same period. This raises the major question, "Why is the shadow price of equity not equal to the shadow price cash flow?" The model can provide clues to this question.

The explanation of the above phenomenon can be found by the uses of cash. Cash can be used in a particular period to pay income taxes (incurring a negative return), forming new equity to support the equity requirements of additional debt, to meet the cash flow requirements of old debt, or to consume. The important considerations involve the equity requirements of debt versus the cash flow requirements of debt. The Linear Programming procedure chooses the use that earns the highest returns; or the choice of trading cash flow versus supporting debt through additional equity is solved through the Linear Programming algorithm. By this solution process, the model indicates that the use of cash to support another unit of debt in a cash flow sense is more valuable than supporting debt in an equity sense.

Empirically the model results in a year one shadow price of 1.4255 for requiring an additional unit moved from cash to equity formation. Stated another way, moving a unit from cash to equity cost reduces the value the objective function 1.4255. The marginal value product of equity for the same period is .6419 and the shadow price of

cash flow is 2.0674. Which confirms this reasoning because the cost of forcing one unit of cash to equity is equal to the shadow price of cash flow less the shadow price of equity.

2.0674 - .6419 = 1.4225

Hence the shadow price of equity and the shadow price of consumption are related in the current solution through the cash flow requirements of debt.

Variables for Comparison

Thus far in this chapter treatment of the results has been restricted to explaining how the results have related to other variables in the solution. At this point it becomes necessary to add some normative concepts to the analyses in order to add some policy inferences to the model results.

The basic normative concept needed is the objective of an individual. The conceptual chapter has laid the ground work in the area of the producers objective by defining the model's objective function as wealth. This objective of wealth is equally valid as an objective among firm organization, and size of firm, etc. It forms a uniform basis for the selection of a particular ownership form over another as the basis that one produces greater wealth.

Shadow Price of Equity

The choice of wealth as a decision value allows for inferences based on the changes in wealth due to a change in some other resource. As a starting point consider the shadow price of equity. First consider the concept of shadow prices, simply stated, a shadow price

gives the change in the objective function resulting from a one unit change is a constraint (Beneke and Winterboer, p.13). In the model equity (initial available equity AVEQT) has a shadow price of .6419. The AVEQT constraint is a greater than constraint which together with the positive sign from the shadow price implies that an additional unit of AVEQT's right hand side will result in a positive change of .6419 in the objective function. For purposes of completeness, it is necessary to recognize that the shadow price is a useful value, but it is applicable only within a certain range around the solution point.

The quantitative definition of the shadow price of equity allows a comparison with production theory. From the model the shadow price implies that a change in wealth of .6419 results from a one unit change in equity. This parallels the marginal value product from production theory which is the change in total revenue with respect to a one unit change in a factor of production. The production economic rationale dictates that optimum allocation of resources occurs where:

$$MVP_{xlyl} = P_{xl}$$

mathematical proofs can be found in most any textbooks but for the purpose of this study a logical proof will be presented.

If the above relationship does not hold maximum profits are not attained. Assume $MVP_{xlyl} > P_{xl}$ then the purchase of an additional unit of x_1 will result in an increase in revenue greater than cost of the added unit, similar results in the case where $MVPX_{clyl} < P_{xl}$. Following this line of reasoning it can be shown that the shadow price of equity must be equal to the cost of equity or an increase in equity will result in an increase in wealth. If the shadow price of equity is greater than the cost of equity, similar results can be optioned with a

decrease in equity.

The use of such a measure in analysis is "what could a producer pay for an additional unit of equity?" The relationships provide meaningful results when size of the firms are considered. As the initial asset structure of the firm expands with everything else held constant the shadow price of equity decreases. This decrease suggests that equity is more valuable to smaller firms and corporate firms.

Shadow Price of Land

The way the model is structured one component of the value of initial acreage is the equity and debt implied by that acreage. Even though the absolute figures may be structurally distorted by this fact, inter-group comparisons can still be accomplished because every group contains the same distortions.

The basic idea of comparing the shadow price for initial land is similar to the arguments previously raised for equity. The shadow price will now indicate the marginal value of an additional acre in terms of wealth to the firm. Again because of the distortions due to debt and equity considerations the shadow price of land should not be compared with market data but it will allow the comparison between groups.

Results from Table 4.3 indicate that land is more valuable to firms with smaller original endowments. Comparisons between ownership forms indicates that for a given size, the initial land endowment is more valuable to the corporate farms.

Shadow Price of Consumption

The shadow price for consumption is the opportunity cost for consuming the last dollar in a particular time period. It is more technically defined as the change in wealth resulting from a one unit change in consumption. Since the shadow price of consumption represents the opportunity cost of cash in a given year it could be used to measure alternative investments, other than the finance enterprise which could be used in that period.

The resulting values for these opportunity costs show some theoretically expected characteristics. All the situations have decreasing consumption shadow prices through time which indicates that consumption in the future is less expensive than consumption at the present. Consumption is less expensive in an opportunity cost sense for larger initial endowments, with the exception of the smaller corporate organization which is roughly equivalent to the larger corporate firm. Comparing the corporate firm with the sole proprietorship, the corporate firm has a higher opportunity cost of consumption. This result applies for both the 320 acre corporation and the 1,120 acre corporation.

Qualitative Considerations

Until this point this study has been concerned with the solution values for statements concerning the corporate versus sole proprietorship analysis. However, this section will examine briefly the non-quantitative aspects of the decision to incorporate.

As discussed in Chapter 1, the corporation has become a popular

business form outside of agriculture. The reasons for its popularity are numerous, but a couple will be stated so that some comparison can be made between agricultural corporations and other corporations.

The corporation is itself a separate legal entity for the owners and managers. This factor allows for owners separated from the firm. The advantage of such a firm is that it may attract capital from numerous sources. While agriculture could make use of such capital, sources outside the family might not be solicited for purposes of maintaining complete control. The favorable aspect from the corporate trait of separation of management and ownership is limited liability. Limited liability states that the maximum amount of capital an investor can loose is his or her investment in the corporation. This aspect loses its applicability in farming because the firm is such a large portion of the investment. Another factor to eliminate the advantage is the policy that most local banks require the farmer to pledge his own assets to support the corporations debt.

Apart from the limited liability aspect of corporations there are real costs which are difficult to qualify. There are fees to establish and maintain a corporation as a legal entity, the fees are dependent upon the state. In conjunction with these establishment fees, additional legal cost for attorneys services and the associated cost of other legal services add to the initial establishment cost of the corporation. Another yearly cost is incurred by the farmer who organizes as a corporation in the two accounting (from a bookkeeping sense) entities. One level of bookkeeping is the individual level which is incurred whether or not the firm is established as a corporation. The second level of books is the corporate level which

may require the services of an accountant to comply with state laws. A final cost of corporate organization occurs when the corporation is liquidated before retirement. Liquidation may cause additional legal fees and taxes. If alternative arrangements are made, however, a corporation can result in less tax expense at retirement.

This section raised a few of the cost incurred by the incorporation of a farm firm. It was not intended to totally cover the additional cost, but merely raise the point that additional costs are incurred by the corporate firm which are not directly linked with the firms production, the cost raised are not of the fixed cost concept.

CHAPTER V

SENSITIVITY OF RESULTS

In this chapter the changes in wealth and other key variables in the model are examined with respect to changes in lending policies and initial debt to asset assumptions. First the relevance of studying changes in an economic system is explored. Next the lending parameters are varied to determine the impact of those parameters on wealth and the incorporated versus sole proprietorship decision. Following the changes in lending parameters, the effects of changing the initial debt to asset position of the firm and the impacts of those changes on the decision to incorporate and wealth is presented. The final section of this chapter generalizes the incorporation decision.

Reasons for Studying Change

The model solutions to this point have focused on the feasibility and value of a solution for the model. However, the solution of the system only gives a partial insight into financial implications of ending policy changes. To gain greater insight in order to predict the results of changing policies and structures one must study change. Samuelson explains the need to study change in Foundations of Economic Analysis.

> It is hardly enough, however, to show that under certain conditions we can name enough relations (equations) to determine the values of our unknowns. It is important that our analysis be developed in such terms that we are aided in determining how our variables change qualitatively or quantitatively with changes in explicit data. Thus, we introduce into our system certain data in the form of parameters, which in changing cause shifts in our functional relationships (Samuelson p. 7).

One is left with the impression from Samuelson's statement that it is not enough to offer a solution given a set of assumptions . Economist need to formulate a problem in such a way that changes in the assumptions can be analyzed. The model used in this study conforms with the idea of analyzing changes in assumptions .

Once the concept of analyzing changes in the system by analyzing the changes in the solution has been accepted, it becomes necessary to determine the appropriate changes that can be analyzed given the model. The dynamic features of this study's model appear well adapted to studying changes resulting from changes in initial position and changes in lending policy. This study does not consider changes in the technical matrix because, as stated earlier, the technical matrix of the current model is very simple and such changes are not likely to have a great impact on decisions involving equity forms.

Changes in Lending Policy

One component of the business decision to expand or how much to expand can be found in lending policies. The particular lending policy involved is the question: How much debt can be issued given a dollar of equity? Earlier chapters addressed the question of equity supporting debt relationships through the transformation of required

debt to asset ratios. The same logic will apply in this section.

To accomplish the evaluation of changes in the business organization decision with respect to changes in lending policies, alternative lending policies must be imposed upon the system. The two alternative lending policies presented in this section are arbitrary, but within a reasonable range of possible market conditions. Scenario 1 involves a 10 percent across the board decrease in allowable debt to asset ratios. Scenario 2 involves a 10 percent across the board ratio increase. Table 5.1 depicts the resulting debt to asset and equity requirement parameters for the alternative Scenarios.

Scenario 1

The 10 percent decrease in allowable debt to asset ratios represents a stricter lending policy because it reduces the amount of debt that can be issued with a given amount of equity. Simulation under the stricter lending policies results in infeasible solutions for all corporate firms. The infeasibilities indicate that corporate firms are not financially viable under the initial conditions and the 10 percent stricter loan policies. Given the observation that financial infeasibility for corporate firms, the only feasible choice of the organization form for the stated assumptions is a sole proprietor organization.

If the issue of debt is profitable (contributes to wealth) then we would expect that a decrease in the amount of debt that can be issued would decrease the wealth of the firm. The results given in Table 5.2 confirm this hypothesis with all firms depicting a reduction in wealth compared with the baseline results in Table 4.3. Loss of

TABLE 5.1

ALTERNATIVE LENDING COEFFICIENTS

Debt to Asset	Scenario 1	Baseline	Scenario 2
Long-Term	70%	80%	90%
Intermediate-Term	56%	66%	76%
Short-Term	40%	50%	60%
Debt/Equity Coefficient	**Scenario 1**	**Baseline**	**Scenario 2**
Long-Term	.6667	.2500	.1765
Intermediate-Term	.7857	.5000	.3158
Short-Term	1.500	1.0000	.6667

TABLE 5.2

SCENARIO 1, 10 PERCENT STRICTER LENDING POLICIES

Terminal Wealth	160	320	1120
Sole Proprietor	97,076.09	234,740.22	728,941.83
Corporation	(A)	(A)	(A)
Shadow Price of Equity	**160**	**320**	**1120**
Sole Proprietor	.5879	.3761	.4618
Corporation	(A)	(A)	(A)
Shadow Price of Land	**160**	**320**	**1120**
Sole Proprietorship	1,467.77	1,144.00	1,249.74
Corporation	(A)	(A)	(A)
Shadow Price of Consumption	**160**	**320**	**1120**
Year 1	3.4341	1.9625	2.6472
Year 2	2.9073	1.6747	2.2926
Year 3	2.4529	1.4229	2.0131
Year 4	2.0751	1.2092	1.7738
Year 5	1.7831	1.0442	1.5790
Corporation			
Year 1	(A)	(A)	(A)
Year 2	(A)	(A)	(A)
Year 3	(A)	(A)	(A)
Year 4	(A)	(A)	(A)
Year 5	(A)	(A)	(A)

(A). Infeasible

wealth under Scenario 1 is an increasing function of the initial position.

Growth for the representative firms under the stricter lending policies are presented in Table 5.3. Since land acquisition is a use of capital (either borrowed or owned) and since stricter lending policies decrease the amount of capital that the firm can obtain by reducing the amount of borrowed capital that can be acquired, one would expect that as lending policies grow stricter, less growth will occur. The theoretical hypotheses are confirmed by comparing the results in Table 5.3 against the baseline results in Table 4.4. The results seem to indicate that the large commercial firm decreases growth by a greater proportion than the other two sizes. Since the corporate organizations are infeasible at this point it is difficult to compare growth rates among the forms of organizations.

Impacts of stricter lending policies on the shadow prices for resources are mixed. The shadow price for equity in Scenario 1 decreases from its baseline value. The decrease is a result of the increase in the equity required to issue a unit of debt. Generally the shadow price of land increases, indicating a combination of increased marginal value of land itself and the increase is the value of equity underlying the land. The shadow price of consumption increases because consumption affects the solution through cash flow and cash financing is a substitute for debt financing.

Scenario 2

The 10 percent increase in the allowable debt to asset ratio represents a more liberal lending policy because it increases the

TABLE 5.3

LAND ACQUISITIONS UNDER SCENARIO 1

Year/Initial/Acres	160	320	1120
Sole Proprietorship			
Year 1	0.00	8.27	74.59
Year 2	0.00	0.00	0.00
Year 3	0.00	0.00	87.04
Year 4	20.55	108.08	173.26
Year 5	135.87	330.72	665.00
Total	156.42	447.07	999.89
Corporation			
Year 1	(A)	(A)	(A)
Year 2	(A)	(A)	(A)
Year 3	(A)	(A)	(A)
Year 4	(A)	(A)	(A)
Year 5	(A)	(A)	(A)
Total	(A)	(A)	(A)

(A). Infeasible Solution

amount of debt that can be issued with a given amount of equity. The simulation under Scenario 2 yields only feasible solutions which indicate that each of the representative firms are financially viable under the stated lending policies. Corporations under the more liberal policies generate more wealth than sole proprietorships therefore they will be the preferred farm of organization ceteris paribus.

Theoretically, if debt is profitable and lending policies increase the amount of debt that can be issued then wealth will increase as lending policies grow more liberal. The results in Table 5.4 are consistent with the theoretical expectations. Increase in wealth for Scenario 2 appears to be an increasing function of initial farm size.

Table 5.5 presents the land acquisition for farms under Scenario 2. The firm growth depicted show an extraordinarily large increase in acreage. This increase appears mostly in the last period which leads to an argument that the simulation is merely speculating on land values. Even if this argument is true, one can draw certain conclusions from the simulation. One conclusion which confirms the theoretical expectations, is that a liberalization of lending policies yields an increase in firm growth. And that corporations at the given lending policies grow at a more rapid rate than sole proprietorships for a given lending policy if that policy is liberal. The increase in allowable debt to asset ratio has a consistent impact on the shadow prices. The change in lending policies increased shadow price for equity, initial land, and consumption. The increase in shadow prices indicate that as the lending rate policies become more liberal,

TABLE 5.4

SCENARIO 2, 10 PERCENT LESS STRICT LENDING POLCIIES

Terminal Wealth	160	320	1120
Sole Proprietorship	218,847.42	453,173.86	1,616,378.37
Corporation	234,272.37	473,808,06	1,621,401.60
Shadow Price of Equity	**160**	**320**	**1120**
Sole Proprietorship	1.3376	1.3376	1.3376
Corporation	1.5616	1.3376	1.3376
Shadow Price Land 0	**160**	**320**	**1120**
Sole Proprietorship	1,686.34	1,680.74	1,683.10
Corporation	1,883.95	1,683.52	1,691,27
Shadow Price of Consumption	**160**	**320**	**1120**
Sole Proprietorship			
Year 1	2.1698	2.1499	2.2248
Year 2	1.8206	1.8408	1.9489
Year 3	1.5476	1.5700	1.6929
Year 4	1.3377	1.3612	1.4894
Year 5	1.3377	1.3377	1.3377
Corporation			
Year 1	3.8197	2.8423	3.8883
Year 2	3.1210	2.3877	3.3096
Year 3	2.2284	1.7132	2.5328
Year 4	1.5341	1.1684	1.8755
Year 5	.9855	.7307	1.2680

TABLE 5.5

LAND ACQUISITION UNDER SCENARIO 2

Year/Initial Acres	160	320	1120
Sole Proprietorship			
Year 1	0.0	0.0	0.0
Year 2	1.54	0.0	0.0
Year 3	62.88	2.08	0.0
Year 4	302.92	211.71	168.37
Year 5	1,390.15	3,193.34	11,860.73
Total	1,757.49	3,407.34	12.029.14
Corporation			
Year 1	61.23	64.78	245.72
Year 2	75.05	76.42	340.82
Year 3	109.24	111.99	465.66
Year 4	457.52	781.71	1,289.22
Year 5	1,342.96	2,951.09	10,912.57
Total	2,056.00	3,985.99	13,253.99

initial resources become more valuable to the firm.

Changes in Initial Position

There exists many changes in economic conditions that can influence the wealth of a given firm. The change that will be examined in this section is a change in initial debt to asset position. As noted in Chapter IV, the baseline was adjusted to 30 percent debt to asset ratio by assuming that the proportions of long and intermediate term debt remain constant while the total amount of debt was varied. The same procedure will be used in this section to vary the debt to asset ratio.

This section considers two additional scenarios. Scenario 3 simulates results for a set of initial conditions with a year zero debt to asset ratio of 40 percent. Scenario 3 represents a situation where farmers in question are relatively worse off. Scenario 4 will represent a situation where farmers are relatively better off with an initial debt to asset ratio of 20 percent. Debt figures for both Scenario 3 and Scenario 4 are presented in Table 5.6.

Scenario 3

Like Scenario 1, this scenario yields feasible solutions only for the sole proprietor firm. Results for Scenario 3 are presented in Table 5.7. The infeasibilities indicate that corporate firms are not financially viable under a 40 percent initial debt to asset ratio. The infeasibilities for corporate firms at the stated debt to asset ratio implies that organization as a sole proprietor at this level is preferred.

The change in initial debt to asset position decreases the

TABLE 5.6

ALTERNATIVE INITIAL DEBT BALANCES

Scenario 3	Long-Term Debt	Intermediate-Term Debt
160 Initial Acres	37,117.14	27,963.46
320 Initial Acres	82,464.65	51,049.55
1120 Initial Acres	247,710.74	316,570.67

Scenario 4	Long-Term Debt	Intermediate-Term Debt
160 Initial Acres	18,469.89	13,914.91
320 Initial Acres	40,739.75	25,219.85
1120 Initial Acres	122,272.65	156,256.55

TABLE 5.7

SCENARIO 3, 40 PERCENT INITIAL
DEBT TO ASSET RATIO

Terminal	160	320	1120
Sole Proprietorship	49,930.27	171,072.57	422,445.98
Corporation	(A)	(A)	(A)
Shadow Price of Equity	**160**	**320**	**1120**
Sole Proprietor	1.2828	.9120	.8429
Corporation	(A)	(A)	(A)
Shadow Price of Land	**160**	**320**	**1120**
Sole Proprietorship	2,043.10	1,613.74	1,554.21
Corporation			
Shadow Price of Consumption	**160**	**320**	**1120**
Sole Proprietor			
Year 1	4.4904	3.2635	3.0448
Year 2	3.8258	2.8123	2.6244
Year 3	3.2517	2.4025	2.2657
Year 4	2.6529	2.0704	1.9734
Year 5	2.1841	1.8133	1.7442
Corporation			
Year 1	(A)	(A)	(A)
Year 2	(A)	(A)	(A)
Year 3	(A)	(A)	(A)
Year 4	(A)	(A)	(A)
Year 5	(A)	(A)	(A)

(A). Infeasible

wealth for each farm size. In principle, these results are consistent with what one would expect. An increase in the initial debt to asset ratio would decrease the amount of equity available for growth which would reduce wealth given that total assets are constant. Another function that would reduce wealth, with a fixed amount of assets, is the increased debt payments that result from more debt.

Table 5.8 presents the acquisition of land under the 40 percent initial debt to asset assumption. Growth in acres for all feasible farm situations increases though the amount of growth in this scenario is a decrease from the growth in the baseline scenario. The decrease in growth comes from a combination of the functions that decrease wealth. The most significant factor is the effect of the additional debt payments. Reasoning behind this statement involves the increase in the shadow for cash flow. The shadow prices for cash flow increase more dramatically than the shadow price for equity. This can be interpreted to mean that at the given solution the value of cash flow increases more dramatically than the value of equity. Hence, the cash flow constraints become more severe.

The change in initial debt to asset ratios to 40 percent for all sizes of firms increases the shadow prices for equity, land in period 0, and yearly consumption. The reasoning behind an increase in the shadow price of equity is not readily apparent. It theoretically could result from the use of equity at a lower level than was previously attained. If a resource is constrained at reduced level the marginal physical product increases under the assumption of decreasing marginal product. The reason for the increase in the shadow price of the initial land owned is probably related to the

TABLE 5.8

LAND ACQUISITIONS UNDER SCENARIO 3

Year/Initial Acres	160	320	1120
Sole Proprietor			
Year 1	0.00	0.00	64.09
Year 2	0.00	0.00	50.65
Year 3	1.92	13.77	188.91
Year 4	19.32	117.57	428.83
Year 5	88.06	366.02	865.12
Total	109.30	492.36	1,5976.60
Corporation			
Year 1	(A)	(A)	(A)
Year 2	(A)	(A)	(A)
Year 3	(A)	(A)	(A)
Year 4	(A)	(A)	(A)
Year 5	(A)	(A)	(A)

(A). Infeasible

reasons that the shadow price of equity increases. The increase in the shadow price of consumption is more readily explained. The increase in initial debt to asset ratios causes a greater debt repayment flow. Since the opportunity cost of consumption is determined by the cash flow constraint, an increase in the cash flow requirements increases the shadow price of consumption ceteris paribus.

Scenario 4

Scenario 4 yields feasible solutions for both sole proprietors and corporate firms under all three firm sizes. The results of the scenarios are presented in Table 5.9. The only farm size that does not yield greater wealth for a corporate form of organization under a 20 percent debt to asset ratio is the 160 acre size. For the 160 acre farm a sole proprietorship structure increases the wealth of the producer by a small amount. The differences in favor of the corporate structure for the remaining sizes are larger in an absolute sense.

Conceptually one would expect that a decrease in the initial debt to asset ratio would increase terminal wealth. The reasoning initials the reduction of the debt repayment requirements. Another factor that would tend to increase wealth is the relative increase in equity if total debt is held constant. the model indicates that wealth increases as the initial debt to asset ratio decreases. Thus, the model results are conceptually valid.

Table 5.10 presents the acres acquired in Scenario 4. The acres acquired has increased in a fairly uniform fashion over the initial assumptions. The change in yearly growth appears to be greater for

TABLE 5.9

SCENARIO 4, 20 PERCENT INITIAL
DEBT TO ASSET RATIO

Terminal	160	320	1120
Sole Proprietor	178,024.05	379,567.80	1,270,002.39
Corporation	174,888.559	390,693.75	1,357,135.99
Shadow Price of Equity	**160**	**320**	**1120**
Sole Proprietor	.6254	.5750	.5278
Corporation	.6610	.6384	.5639
Shadow Price of Land	**160**	**320**	**1120**
Sole Proprietor	1,243.15	1,193.12	1,124.06
Corporation	1,305.98	1,277.28	1,180.84
Shadow Price of Consumption	**160**	**320**	**1120**
Sole Proprietor			
Year 1	1.9532	1.8459	1.6508
Year 2	1.6564	1.5824	1.4584
Year 3	1.3976	1.3479	1.2856
Year 4	1.1803	1.1654	1.1338
Year 5	1.0172	1.0249	1.0138
Corporation			
Year 1	2.9296	2.7344	2.6750
Year 2	2.5503	2.4069	2.5088
Year 3	1.9302	1.8315	1.9902
Year 4	1.4114	1.3475	1.5530
Year 5	.9288	.8918	1.1163

TABLE 5.10

LAND ACQUISITION UNDER SCENARIO 4

Year/Initial Acres	160	320	1120
Sole Proprietor			
Year 1	32.86	107.74	309.98
Year 2	0.00	3.77	0.00
Year 3	0.00	111.76	0.00
Year 4	89.19	233.21	94.96
Year 5	361.81	562.35	2,275.62
Total	483.86	1,018.83	2,680.56
Corporation			
Year 1	33.32	142.34	618.23
Year 2	38.59	30.73	174.24
Year 3	58.18	53.88	627.59
Year 4	83.54	77.37	1,083.23
Year 5	268.94	735.87	1,836.89
Total	482.57	1,040.19	4,340.18

the corporations. Greater growth under corporate ownership can be justified by the lower tax rates at the corporate level since income added at the corporate level incurs less tax, it is more profitable for a corporation to expand versus a sole proprietorship.

The shadow prices for equity, initial land and yearly consumption have decreased. The reasons for the decrease are the inverse of the logic behind the increase in shadow prices in Scenario 3. The changes are not as dramatic as changes in shadow prices in Scenario 3 which leads one to believe that the increase in the value of resources as the initial position worsens is greater than the increase when the position betters.

Inferences of Changes

This chapter has generated solutions for difference changes in financial positions. These different solutions result in changes in wealth and growth that are consistent with theoretical expectations. In general, as lending policies become stricter growth and wealth of each feasible farm decreases. The inverse of this relation is also true. The other changes simulated also conform with theoretical expectations. An increase in the initial debt to asset ratio decreases the wealth and the growth of the firm. A decrease in the initial debt to asset ratio increases the growth and the wealth of the firm. The conclusion offered is that the model generates conceptually proper responses to changes.

The comparison of solutions between organizational forms yields conclusions on the effects of the legal organization or producers wealth and firm growth. No single form of organization is

consistently "better". The choice of the form of organization is dependent upon lending policies and initial position. As lending policies become more liberal the corporation becomes more attractive. However, corporations appear to have a narrow range of feasibility. A corporation is not financially viable with stricter lending policies. A corporation becomes more attractive than sole proprietorships as the ratio of initial debt to asset ratio decreases but becomes less attractive as the initial debt to asset ratio increases. Again the infeasibilities encountered in solutions indicate that the corporation is financially viable only in a small range.

CHAPTER VI

SUMMARY, CONCLUSION, AND SUGGESTIONS FOR FURTHER RESEARCH

The study thus far has emphasized only sections of the whole picture. Pieces of the picture are drawn together to make conclusions from the study. In the final section of the chapter suggested courses for further study in the area for growth under alternative equity forms are outlined.

Summary and Conclusions

The beginning point for this study was explaining the need for a study of alternative equity forms. As earlier stated growth and wealth have implications for the structure of agriculture, the marginal values of various resources, and the real cost of consumption. Since the form of legal organization effects growth and wealth, there is a need to study financial performance under alternative forms of legal organization. With the need for study established, Chapter I developed the procedure to be used in the study (Polyperiod Programming). This study differs from other work previously undertaken in this area in terms of quantitative technique.

After the overall procedure was determined, the actual model construction could begin. Chapter II focused on the theoretical model. It included the definition of the individual financial

question through a definition of finance, the examination of wealth as a financial objective, and the theoretical trade-offs between wealth and consumption. Chapter II also presented the theoretical view of dynamics from a financial viewpoint. Once the theory had been established Chapter III presented an empirical model that was consistent with the theoretical framework examined in Chapter II.

Chapter IV presents initial data and primary results of the simulation. From the primary results optional organizations were determined for each farm size. Under the baseline assumptions the corporate firm is preferred for 1120 acre farms. The sole proprietorship is preferred for the 160 and 320 acre farms. Greater growth is attainable through corporate firm for all farm sizes given that the corporation is financially feasible.

Chapter V is concerned with changes in the assumptions. The changes in assumptions considered include a general increase and decrease in lending policies and initial debt to asset ratios. The results indicate that corporations generate greater wealth with more liberal credit policies or decreased debt to asset ratios. However, under stricter lending policies and increased initial debt to asset ratios the corporate organizations are not financially viable. In general with more liberal lending policies or decreased initial debt to asset ratios, all farms acquire more land throughout the period. The increase in the land acquired by the corporation under these scenarios is generally greater than the increase in land acquisitions of the sole proprietorship.

Conclusions that are not explicitly stated in the text deal primarily with cash flow lending policies and the real cost of

consumption. In the credit markets, lenders use many different credit policies for determining whether to extend credit to a firm. Among the most prominent forms of credit policies are equity (or debt to asset and debt to equity ratios), and cash flow lending (which approaches a feasibility analysis). The model used in this study allows for an examination of these alternative lending policies. To determine the appropriate credit policy one must determine which policy insures both the security of the bankers investment and sufficient capital for the individual or firm. The key to such a policy is found in the constraining resources of borrowing activities within the model. Equity typically does not bound the borrowing activities within the various solutions. Typically, the constraining factor in the issue of debt is the ability of an additional unit of debt to cash flow itself, the second lending parameter. With this idea in mind the choice of an appropriate lending policy is cash flow lending. If cash flow lending is not used farmers could over expand and encounter feasibility problems.

The second point that is not explicit in the text deals with wealth and real cost of consumption. The real cost of consumption is a function of alternative uses of cash flow. In some solutions in the study the shadow price of consumption is the smallest for the medium sized firm (320 acre). This would suggest that the value of an additional unit of cash flow for a small firm is needed for the feasibility of the operation while cash flow for the larger firm is more valuable because of expansion alternative (ceteris paribus). The intermediate firm while possessing enough cash flow for survival does not possess the opportunities for expansion of the larger firm.

Another point of the model is that expansion is a function of net cash flow over the amount required for consumption. In solutions where a large portion of returns are needed for consumption the expansion of the firm is limited. After the point where cash flow needed for consumption becomes less binding the farm is able to expand. The expansion then increases the cash flow available for allocation and with a fixed consumption level means even more rapid future expansion.

A basic conclusion that is apparent in all the simulations involves the shadow price of resources. Generally, if the corporate firm at a given level is feasible, the shadow price for the given resource will be greater for the corporation. This conclusion has its basis in the tax parameters. If a corporation is feasible, it has met the family living requirements, therefore each dollar added is taxed at a lower tax rate. This concept linked with the idea that the shadow price of a resource is the increment in the objective due to a one unit change in resource leads to the idea that the shadow price for resources under a corporation would be greater given feasibility of the solution.

Suggestions for Further Research

Suggestions for further study basically entail bringing more realism into the model. The model makes capital investments on a basis of a five-year period. The short simulation period probably causes distortions in variables especially in shadow prices. One suggestion is that the current L.P. model be extended to forty years to eliminate the distortions caused by the shortened time frame. The second suggestion is to allow the model to sell as well as buy land.

This provides a more realistic picture of the decisions faced by the firm. The last suggestion is to include risk either through the use of random returns and cost or some portfolio framework. If the prior analysis of risk is chosen, the future study will probably have to leave the linear programming approach and a use systems analysis approach. The later analysis of risk can be accomplished within linear programming by weighing cost and returns for risk. This weighing could be either a risk adjusted discount rate or a certainty equivalent.

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APPENDIX A

ORIGINAL STATES

	A. Original Debt to Asset			B. 30% Debt to Asset		
Acres	160	320	1,120	160	320	1,120
Physical Assets						
Real Estate	129,663	258,332	1,096,113	129,663	258,332	1,096,113
Non-Real Estate						
Livestock	10,888	21,336	92,282	10,888	21,336	92,282
Machinery	17,323	37,820	125,744	17,323	37,820	125,744
Crops	3,609	14,011	57,308	3,609	14,011	57,308
Financial Assets						
Demand Deposits	393	1,076	12,081	393	1,076	12,081
Currency	136	375	4,230	136	375	4,230
Inv. in Crops.	1,467	4,823	41,003	1,467	4,823	41,003
Total	163,479	337,773	1,428,761	163,479	337,773	1,428,761
Liabilities (Dollars)						
Real Estate	7,092	23,625	128,532	27,971	61,602	184,994
Non-Real Estate						
Excluding CCC	5,343	14,625	164,262	21,073	38,135	236,411
CCC Loans	311	1,595	7,223	311	1,595	7,223
Total Debt	12,746	39,845	300,022	49,355	100,932	428,628
Equity	150,733	297,928	1,128,739	114,124	236,841	1,444,133
Total	163,479	337,773	1,428,761	163,479	337,773	1,428,761
Debt to Asset Ratio	7.80%	11.80%	21.00%	30.00%	30.00%	30.00%

APPENDIX B

VARIABLE AND ROW NAMES

Because of the polyperiod construction of the model similar equations or rows perform the same fucntion in different years. To shorten the list of variables and rows these similar groups will be defined all at once using notation such as CE_i(i=0,1,2,3,4,5,) for CE0-CE5. Another note is the use of INT at the end of the variable name to denote that this constraint is a initial condition.

Rows

Objective functions

OBJ1, the financial objective of maximizing the present value of cash flows

OBJ2, maximize the ending period balance of retained earnings

OBJ3, maximize the sum of accounting net incomes

Initial Period

CAINT, cash initially held

OAINT, other assets (after long term assets and machinery)

HVINT, value of the home (Long term assets after land has been deducted)

MAINT, machinery initial balance

LAINT, land initially owned

IDINT, initial balance of intermediate debt

LDINT, land debt initially

REINT, initial balance of retained earnings

AVEQT, equity originally available to use as a equity reserve for debt acquisition

Yearly rows

CNCOI, constant portion of consumption (i=1,2,3,4,5)

$LAND_i$ (i=1,2,3,4,5), the land constraints for the given periods on owned land

$LREN_i$(i=1,2,3,4,5), the rented land constraint for periods 1 through 5

AUM_i(i=1,2,3,4,5), the grazing constraints in the various years

CAP_i(i-1,2,3,4,5), the capital constraints in the years under study

EQT_i(i-1,2,3,4,5), the constraint which determines the amount of equity not used as a equity reserve

CF_i(i=1,2,3,4,5), the cash flow constraint for the various years

$LNTF_i$(i=1,2,3,4), the financing row

$MARE_i$(i-1,2,3,4,5), the machinery requirement constraint

$MACC_i$(i=1,2,3,4,5), the machinery accumulator row

Tax variables

$TAXI_i$(i=1,2,3,4,5), the row to calculate taxable income and distribute it among tax rates

$TAXP_i$(i-1,2,3,4,5), the row to accumulate and transfer taxes payable

IL_{ji}(j=M1, ..., M9,10,...14);(i=1,2,3,4,5), the rows that reprsent tax rates. Because of the structure of rates it is necessary to have a range over which the rates are effective.

Accounting rows

$GPSR_i$(i-1,2,3,4,5), gross profit for a given year

$GPTR_i$(i=1,2,3,4,5), gross profit transfer rows

$GPTR_i$(i=1,2,3,4,5), other expenses for a given year

$OESR_i$(i=1,2,3,4,5), other expenses transfer rows

$NITS_i$(i=1,2,3,4,5), net income before taxes for a given year

$NITT_i$(i=1,2,3,4,5), net income before taxes transfer

$TA\text{-}P_I$(I=1,2,3,4,5), taxes paid in year i

$NATS_i$(i=1,2,3,4,5), net after tax income for a given year

$NATT_i$(i=1,2,3,4,5), net income after taxes transfer

$CABS_i$(i-1,2,3,4,5), cash balance in period i

$MABS_i$(i=1,2,3,4,5), other asset balance in year i

$OABS_i$(i=1,2,3,4,5), other asset balance in year i

$ALGS_i$(i=1,2,3,4,5), appreciation in land values (unrealized gains) in year i

$LABS_i$(i=1,2,3,4,5), have value in period i

HVR_i(i=1,2,3,4,5), have value in period i

$TABS_i$(i=1,2,3,4,5),total asset balance in period i

$IDBS_i$(i=1,2,3,4,5) intermediate debt balance in periodi

$LDES_i$(i=1,2,3,4,5), land debt in period i

$TDES_i$(i=1,2,3,4,5), total debt balance in period i

R/EB_i(i=1,2,3,4,5), retained earnings balance (without the recognizing land appreciation) in period i

R/ET_i(i=1,2,3,4,5), retained earnings transfer

R/EL_i(i=1,2,3,4,5), retained earnings due to land appreciation

R/ES_i(i=1,2,3,4,5), total retained earnings in period i

Columns

CE_i(i=0,1,2,3,4), cash to equity in period i

OEA0, other assets in period 0

LOWN0, had initially owned in period 0

LB_i(i=1,2,3,4), land purchased in period i8

HV0, home value in period 0

BI_i(i=0,1,2,3,4,5), borrowed intermediate debt in period i

BL_i(i=0,1,2,3,4), borrowed long-term in period i

$MACB_i$(i=1,2,3,4,5), machinery balance in period i

$RE\text{-}T_i$(i=0,1,2,3,4,5), retained earnings transfered in period i

ET_i(i=0,1,2,3,4,), equity tranfered in period i

CN-T0, constant consumption

WO_i(i=1,2,3,4,5), wheat on owned ground in period i

WR_i(i=1,2,3,4,5), wheat on rented ground in period i

CO_i(i=1,2,3,4,5), cotton on owned ground in period i

CR_i(i=1,2,3,4,5), cotton on rented ground in period i

AO_i(i=1,2,3,4,5), alfalfa in period i

GO_i(i=1,2,3,4,5), grazing crop on owned ground in i

GR_i(i=1,2,3,4,5), grazing crop on rented ground in period i

HC_i(i=1,2,3,4,5), cattle in period i

BS_i(i=1,2,3,4,5), borrowed short-term in period i

EL_i(i=1,2,3,4), equity financing long-term in period i

$MAPU_i$(i=1,2,3,4,5), machinery purchased in period i

EI_i(i=1,2,3,4,5), equity financing intermediate-term in period i

IT_{ji}(j=B1,B2,...B9,10,11,...15)(i=1,2,3,4,5), individual tax brackets in period i

ITAXP, individual income taxes paid in period i

GP1-T_i(i=1,2,3,4,5), gross profit transfer in period i

OI-T_i(i=1,2,3,4,5), other expenses transfered in period i

NB-T_i(i=1,2,3,4,5), net before tax income transfered in period i

NI-T_i(i=1,2,3,4,5), net after tax income transfered in period i

Additional Rows for Croporations

CLM_{ji}(j=1,...,5)(i=1,...,5); limits for corporate income tax brackets (row)

CTB_{ji}(j=1,...5)(i-1,...,5); amount of income that falls in each specific bracket (column)

IGIS; (i=1,...5); equates income at the individual level with consumption and individual taxes (row)

SA-I; (i-1,...,5); salary transfered from the croporation to the individual

APPENDIX C(1)

INITIAL RESULTS FOR THE 160 ACRE SOLE PROPRIETORSHIP

NUMBER	...ROW..	AT	...ACTIVITY...	SLACK ACTIVITY	..LOWER LIMIT.	..UPPER LIMIT.	.DUAL ACTIVITY
1	OBJ1	BS	130053.99405	130053.99405-	NONE	NONE	1.00000
2	OBJ2	BS	112154.47383	112154.47383-	NONE	NONE	.
3	OBJ3	BS	47130.67383	47130.67383-	NONE	NONE	.
4	CAINT	UL	529.00000	.	NONE	529.00000	2.70939-
5	OAINT	EQ	15653.00000	.	15653.00000	15653.00000	.64200-
6	HVINT	EQ	27202.00000	.	27202.00000	27202.00000	.64200-
7	MAINT	UL	17323.00000	.	NONE	17323.00000	2.10217-
8	LAINT	UL	160.00000	.	NONE	160.00000	1267.84568-
9	IDINT	LL	20173.00000	.	20173.00000	NONE	3.26226
10	LDINT	LL	27971.00000	.	27971.00000	NONE	3.08656
11	REINT	LL	.	.	.	NONE	.64200
12	AVEQT	LL	.	.	.	NONE	.64190
13	CNCO1	LL	10000.00000	.	10000.00000	NONE	2.06750
14	CNCO2	LL	10000.00000	.	10000.00000	NONE	1.71994
15	CNCO3	LL	10000.00000	.	10000.00000	NONE	1.43210
16	CNCO4	LL	10000.00000	.	10000.00000	NONE	1.20547
17	CNCO5	LL	10000.00000	.	10000.00000	NONE	1.03580
18	LAND1	UL	.	.	NONE	.	54.91546-
19	LREN1	BS	320.00000-	320.00000	NONE	.	.
20	AUM1	LL	.	.	.	NONE	84.94341
21	CAP1	UL	.	.	NONE	.	.69721-
22	EQT1	LL	.	.	.	NONE	.64190
23	CF1	LL	.	.	.	NONE	2.06740
24	LNTF1	UL	.	.	NONE	.	2.06740-
25	MARE1	UL	.	.	NONE	.	.67092-
26	MACC1	LL	.	.	.	NONE	1.39648
27	TAXI1	UL	.	.	NONE	.	.33219-
28	TAXP1	UL	.	.	NONE	.	3.01990-
29	ILM11	UL	5400.00000	.	NONE	5400.00000	.33219-
30	ILM21	BS	744.18400	1355.81600	NONE	2100.00000	.
31	ILM31	BS	.	2100.00000	NONE	2100.00000	.
32	ILM41	BS	.	4300.00000	NONE	4300.00000	.
33	ILM51	BS	.	4100.00000	NONE	4100.00000	.
34	ILM61	BS	.	4200.00000	NONE	4200.00000	.
35	ILM71	BS	.	4400.00000	NONE	4400.00000	.
36	ILM81	BS	.	5300.00000	NONE	5300.00000	.
37	ILM91	BS	.	5300.00000	NONE	5300.00000	.
38	IL101	BS	.	10600.00000	NONE	10600.00000	.
39	IL111	BS	.	14200.00000	NONE	14200.00000	.
40	IL121	BS	.	25600.00000	NONE	25600.00000	.
41	IL131	BS	.	23800.00000	NONE	23800.00000	.
42	IL141	BS	.	53000.00000	NONE	53000.00000	.
43	GPSR1	BS	16969.60000	16969.60000-	NONE	NONE	.
44	GPTR1	LL	.	.	.	NONE	.00020
45	OESR1	BS	11978.73935	11978.73935-	NONE	NONE	.
46	OETR1	UL	.	.	NONE	.	.00020-
47	NITS1	BS	4990.86065	4990.86065-	NONE	NONE	.
48	NITT1	LL	.	.	.	NONE	.00020
49	TA-P1	BS	81.86024	81.86024-	NONE	NONE	.

NUMBER	...ROW..	AT	...ACTIVITY. .	SLACK ACTIVITY	..LOWER LIMIT.	..UPPER LIMIT.	.DUAL ACTIVITY
50	NATS1	BS	4909.00041	4909.00041-	NONE	NONE	.
51	NATT1	LL	.	.	.	NONE	.00020
52	CABS1	BS	.	.	NONE	NONE	.
53	MABS1	BS	20456.00000	20456.00000-	NONE	NONE	.
54	OABS1	BS	15653.00000	15653.00000-	NONE	NONE	.
55	ALGS1	BS	4099.20000	4099.20000-	NONE	NONE	.
56	LABS1	BS	97673.60000	97673.60000-	NONE	NONE	.
57	HVR1	BS	27202.00000	27202.00000-	NONE	NONE	.
58	TABS1	BS	169871.00000	169871.00000-	NONE	NONE	.
59	SDBS1	BS	7688.82236	7688.82236-	NONE	NONE	.
60	IDBS1	BS	17121.02683	17121.02683-	NONE	NONE	.
61	LDES1	BS	29327.75378	29327.75378-	NONE	NONE	.
62	TDES1	BS	54137.60297	54137.60297-	NONE	NONE	.
63	R/EB1	BS	109932.80041	109932.80041-	NONE	NONE	.
64	R/ET1	LL	.	.	.	NONE	.00010
65	R/EL1	BS	4099.20000	4099.20000-	NONE	NONE	.
66	R/ES1	BS	114032.00041	114032.00041-	NONE	NONE	.
67	LAND2	UL	.	.	NONE	.	42.02468-
68	LREN2	BS	320.00000-	320.00000	NONE	.	.
69	AUM2	LL	.	.	.	NONE	43.80319
70	CAP2	UL	.	.	NONE	.	.68851-
71	EQT2	LL	.	.	.	NONE	.64190
72	CF2	LL	.	.	.	NONE	1.71884
73	LNTF2	UL	.	.	NONE	.	1.69897-
74	MARE2	UL	.	.	NONE	.	.70557-
75	MACC2	LL	.	.	.	NONE	.91671
76	TAXI2	UL	.	.	NONE	.	.
77	TAXP2	UL	.	.	NONE	.	2.62604-
78	ILM12	BS	5228.80648	171.19352	NONE	5400.00000	.
79	ILM22	BS	.	2100.00000	NONE	2100.00000	.
80	ILM32	BS	.	2100.00000	NONE	2100.00000	.
81	ILM42	BS	.	4300.00000	NONE	4300.00000	.
82	ILM52	BS	.	4100.00000	NONE	4100.00000	.
83	ILM62	BS	.	4200.00000	NONE	4200.00000	.
84	ILM72	BS	.	4400.00000	NONE	4400.00000	.
85	ILM82	BS	.	5300.00000	NONE	5300.00000	.
86	ILM92	BS	.	5300.00000	NONE	5300.00000	.
87	IL102	BS	.	10600.00000	NONE	10600.00000	.
88	IL112	BS	.	14200.00000	NONE	14200.00000	.
89	IL122	BS	.	25600.00000	NONE	25600.00000	.
90	IL132	BS	.	23800.00000	NONE	23800.00000	.
91	IL142	BS	.	53000.00000	NONE	53000.00000	.
92	GPSR2	BS	16969.60000	16969.60000-	NONE	NONE	.
93	GPTR2	LL	.	.	.	NONE	.00020
94	OESR2	BS	12455.50773	12455.50773-	NONE	NONE	.
95	OETR2	UL	.	.	NONE	.	.00020-
96	NITS2	BS	4514.09227	4514.09227-	NONE	NONE	.
97	NITT2	LL	.	.	.	NONE	.00020
98	TA-P2	BS	.	.	NONE	NONE	.
99	NATS2	BS	4514.09227	4514.09227-	NONE	NONE	.
100	NATT2	LL	.	.	.	NONE	.00020

NUMBER	...ROW..	AT	...ACTIVITY...	SLACK ACTIVITY	..LOWER LIMIT.	..UPPER LIMIT.	.DUAL ACTIVITY
101	CABS2	BS	.	.	NONE	NONE	.
102	MABS2	BS	20456.00000	20456.00000-	NONE	NONE	.
103	OABS2	BS	15653.00000	15653.00000-	NONE	NONE	.
104	ALBS2	BS	8361.60000	8361.60000-	NONE	NONE	.
105	LABS2	BS	97673.60000	97673.60000-	NONE	NONE	.
106	HVR2	BS	27202.00000	27202.00000-	NONE	NONE	.
107	TABS2	BS	174133.40000	174133.40000-	NONE	NONE	.
108	SDBS2	BS	12453.58378	12453.58378-	NONE	NONE	.
109	IDBS2	BS	13641.99125	13641.99125-	NONE	NONE	.
110	LDES2	BS	32814.02838	32814.02838-	NONE	NONE	.
111	TDES2	BS	58909.60341	58909.60341-	NONE	NONE	.
112	R/EB2	BS	104446.89268	104446.89268-	NONE	NONE	.
113	R/ET2	LL	.	.	.	NONE	.00010
114	R/EL2	BS	8361.60000	8361.60000-	NONE	NONE	.
115	R/ES2	BS	112808.49268	112808.49268-	NONE	NONE	.
116	LAND3	UL	.	.	NONE	.	37.03500-
117	LREN3	BS	342.08319-	342.08319	NONE	.	.
118	AUM3	LL	.	.	.	NONE	34.12181
119	CAP3	UL	.	.	NONE	.	.62893-
120	EQT3	LL	.	.	.	NONE	.64190
121	CF3	LL	.	.	.	NONE	1.43200
122	LNTF3	UL	.	.	NONE	.	1.38741-
123	MARE3	UL	.	.	NONE	.	.57449-
124	MACC3	LL	.	.	.	NONE	.53672
125	TAXI3	UL	.	.	NONE	.	.09588-
126	TAXP3	UL	.	.	NONE	.	.87166-
127	ILM13	UL	5400.00000	.	NONE	5400.00000	.09588-
128	ILM23	BS	.	2100.00000	NONE	2100.00000	.
129	ILM33	BS	.	2100.00000	NONE	2100.00000	.
130	ILM43	BS	.	4300.00000	NONE	4300.00000	.
131	ILM53	BS	.	4100.00000	NONE	4100.00000	.
132	ILM63	BS	.	4200.00000	NONE	4200.00000	.
133	ILM73	BS	.	4400.00000	NONE	4400.00000	.
134	ILM83	BS	.	5300.00000	NONE	5300.00000	.
135	ILM93	BS	.	5300.00000	NONE	5300.00000	.
136	IL103	BS	.	10600.00000	NONE	10600.00000	.
137	IL113	BS	.	14200.00000	NONE	14200.00000	.
138	IL123	BS	.	25600.00000	NONE	25600.00000	.
139	IL133	BS	.	23800.00000	NONE	23800.00000	.
140	IL143	BS	.	53000.00000	NONE	53000.00000	.
141	GPSR3	BS	18140.67133	18140.67133-	NONE	NONE	.
142	GPTR3	LL	.	.	.	NONE	.00020
143	OESR3	BS	13468.84352	13468.84352-	NONE	NONE	.
144	OETR3	UL	.	.	NONE	.	.00020-
145	NITS3	BS	4671.82781	4671.82781-	NONE	NONE	.
146	NITT3	LL	.	.	.	NONE	.00020
147	TA-P3	BS	.	.	NONE	NONE	.
148	NATS3	BS	4671.82781	4671.82781-	NONE	NONE	.
149	NATT3	LL	.	.	.	NONE	.00020
150	CABS3	BS	.	.	NONE	NONE	.
151	MABS3	BS	21867.66764	21867.66764-	NONE	NONE	.

NUMBER	...ROW..	AT	...ACTIVITY...	SLACK ACTIVITY	..LOWER LIMIT.	..UPPER LIMIT.	.DUAL ACTIVITY
152	OABS3	BS	15653.00000	15653.00000-	NONE	NONE	.
153	ALGS3	BS	12795.20000	12795.20000-	NONE	NONE	.
154	LABS3	BS	110414.61137	110414.61137-	NONE	NONE	.
155	HVR3	BS	27202.00000	27202.00000-	NONE	NONE	.
156	TABS3	BS	187932.47901	187932.47901-	NONE	NONE	.
157	SOBS3	BS	17308.06501	17308.06501-	NONE	NONE	.
158	IOBS3	BS	9674.97080	9674.97080-	NONE	NONE	.
159	LOES3	BS	45643.99611	45643.99611-	NONE	NONE	.
160	TOES3	BS	72627.03192	72627.03192-	NONE	NONE	.
161	R/EB3	BS	99118.72049	99118.72049-	NONE	NONE	.
162	R/ET3	LL	.	.	.	NONE	.00010
163	R/EL3	BS	12795.20000	12795.20000-	NONE	NONE	.
164	R/ES3	BS	111913.92049	111913.92049-	NONE	NONE	.
165	LAND4	UL	.	.	NONE	.	30.21363-
166	LREN4	BS	444.13930-	444.13930	NONE	.	.
167	AUM4	LL	.	.	.	NONE	52.47744
168	CAP4	UL	.	.	NONE	.	.57085-
169	EQT4	LL	.	.	.	NONE	.64190
170	CF4	LL	.	.	.	NONE	1.20537
171	LNTF4	UL	.	.	NONE	.	1.13956-
172	MARE4	UL	.	.	NONE	.	.45532-
173	MACC4	LL	.	.	.	NONE	.17495
174	TAXI4	UL	.	.	NONE	.	.24339-
175	TAXP4	UL	.	.	NONE	.	2.02827-
176	ILM14	UL	5400.00000	.	NONE	5400.00000	.24339-
177	ILM24	UL	2100.00000	.	NONE	2100.00000	.02028-
178	ILM34	BS	40.39043	2059.60957	NONE	2100.00000	.
179	ILM44	BS	.	4300.00000	NONE	4300.00000	.
180	ILM54	BS	.	4100.00000	NONE	4100.00000	.
181	ILM64	BS	.	4200.00000	NONE	4200.00000	.
182	ILM74	BS	.	4400.00000	NONE	4400.00000	.
183	ILM84	BS	.	5300.00000	NONE	5300.00000	.
184	ILM94	BS	.	5300.00000	NONE	5300.00000	.
185	IL104	BS	.	10600.00000	NONE	10600.00000	.
186	IL114	BS	.	14200.00000	NONE	14200.00000	.
187	IL124	BS	.	25600.00000	NONE	25600.00000	.
188	IL134	BS	.	23800.00000	NONE	23800.00000	.
189	IL144	BS	.	53000.00000	NONE	53000.00000	.
190	GPSR4	BS	23552.70716	23552.70716-	NONE	NONE	.
191	GPTR4	LL	.	.	.	NONE	.00020
192	OESR4	BS	16374.75468	16374.75468-	NONE	NONE	.
193	OETR4	UL	.	.	NONE	.	.00020-
194	NITS4	BS	7177.95248	7177.95248-	NONE	NONE	.
195	NITT4	LL	.	.	.	NONE	.00020
196	TA-P4	BS	235.84685	235.84685-	NONE	NONE	.
197	NATS4	BS	6942.10563	6942.10563-	NONE	NONE	.
198	NATT4	LL	.	.	.	NONE	.00020
199	CABS4	BS	.	.	NONE	NONE	.
200	MABS4	BS	28391.60485	28391.60485-	NONE	NONE	.
201	OABS4	BS	15653.00000	15653.00000-	NONE	NONE	.
202	ALGS4	BS	17722.90829	17722.90829-	NONE	NONE	.

NUMBER	...ROW..	AT	...ACTIVITY...	SLACK ACTIVITY	..LOWER LIMIT.	..UPPER LIMIT.	.DUAL ACTIVITY
203	LABS4	BS	148642.79129	148642.79129-	NONE	NONE	.
204	HVR4	BS	27202.00000	27202.00000-	NONE	NONE	.
205	TABS4	BS	237612.30443	237612.30443-	NONE	NONE	.
206	SDBS4	BS	19724.31803	19724.31803-	NONE	NONE	.
207	IDBS4	BS	5154.40323	5154.40323-	NONE	NONE	.
208	LDES4	BS	94052.60848	94052.60848-	NONE	NONE	.
209	TDES4	BS	118931.32975	118931.32975-	NONE	NONE	.
210	R/EB4	BS	96060.82612	96060.82612-	NONE	NONE	.
211	R/ET4	LL	.	.	.	NONE	.00010
212	R/EL4	BS	17722.90829	17722.90829-	NONE	NONE	.
213	R/ES4	BS	113783.73441	113783.73441-	NONE	NONE	.
214	LAND5	UL	.	.	NONE	.	82.06955-
215	LREN5	BS	1079.10435-	1079.10435	NONE	.	.
216	AUM5	LL	.	.	.	NONE	34.20761
217	CAP5	UL	.	.	NONE	.	.51583-
218	EQT5	LL	.	.	.	NONE	.64190
219	CF5	LL	.	.	.	NONE	1.03570
220	LNTF5	UL	.	.	NONE	.	.94400-
221	MARE5	UL	.	.	NONE	.	.08571-
222	MACC5	LL	.	.	.	NONE	.07477
223	TAXI5	UL	.	.	NONE	.	.42744-
224	TAXP5	UL	.	.	NONE	.	1.81940-
225	ILM15	UL	5400.00000	.	NONE	5400.00000	.42744-
226	ILM25	UL	2100.00000	.	NONE	2100.00000	.22731-
227	ILM35	UL	2100.00000	.	NONE	2100.00000	.20911-
228	ILM45	UL	4300.00000	.	NONE	4300.00000	.17272-
229	ILM55	UL	4100.00000	.	NONE	4100.00000	.13634-
230	ILM65	UL	4200.00000	.	NONE	4200.00000	.09995-
231	ILM75	UL	4400.00000	.	NONE	4400.00000	.02717-
232	ILM85	BS	.	5300.00000	NONE	5300.00000	.
233	ILM95	BS	.	5300.00000	NONE	5300.00000	.
234	IL105	BS	.	10600.00000	NONE	10600.00000	.
235	IL115	BS	.	14200.00000	NONE	14200.00000	.
236	IL125	BS	.	25600.00000	NONE	25600.00000	.
237	IL135	BS	.	23800.00000	NONE	23800.00000	.
238	IL145	BS	.	53000.00000	NONE	53000.00000	.
239	GPSR5	BS	57224.90370	57224.90370-	NONE	NONE	.
240	GPTR5	LL	.	.	.	NONE	.00020
241	OESR5	BS	27666.25600	27666.25600-	NONE	NONE	.
242	OETR5	UL	.	.	NONE	.	.00020-
243	NITS5	BS	29558.64770	29558.64770-	NONE	NONE	.
244	NITT5	LL	.	.	.	NONE	.00020
245	TA-P5	BS	3465.00000	3465.00000-	NONE	NONE	.
246	NATS5	BS	26093.64770	26093.64770-	NONE	NONE	.
247	NATT5	LL	.	.	.	NONE	.00020
248	CABS5	BS	.	.	NONE	NONE	.
249	MABS5	BS	68981.74560	68981.74560-	NONE	NONE	.
250	OABS5	BS	15653.00000	15653.00000-	NONE	NONE	.
251	ALGS5	BS	24340.58388	24340.58388-	NONE	NONE	.
252	LABS5	BS	396002.95056	396002.95056-	NONE	NONE	.
253	HVR5	BS	27202.00000	27202.00000-	NONE	NONE	.

NUMBER	...ROW..	AT	...ACTIVITY...	SLACK ACTIVITY	..LOWER LIMIT.	..UPPER LIMIT.	.DUAL ACTIVITY
254	TABS5	BS	532180.28005	532180.28005-	NONE	NONE	.
255	SDBS5	BS	.	.	NONE	NONE	.
256	IDBS5	BS	.	.	NONE	NONE	.
257	LDES5	BS	386643.61509	386643.61509-	NONE	NONE	.
258	TDES5	BS	386643.61509	386643.61509-	NONE	NONE	.
259	R/EB5	BS	112154.47383	112154.47383-	NONE	NONE	.
260	R/ET5	LL	.	.		NONE	.00010
261	R/EL5	BS	24340.58388	24340.58388-	NONE	NONE	.
262	R/ES5	BS	136495.05771	136495.05771-	NONE	NONE	.
263	USER1	UL	80.00000	.	NONE	80.00000	257.27529-
264	USER2	UL	80.00000	.	NONE	80.00000	261.50743-
265	USER3	UL	80.00000	.	NONE	80.00000	217.34703-
266	USER4	UL	80.00000	.	NONE	80.00000	175.99204-
267	USER5	UL	80.00000	.	NONE	80.00000	85.93255-

NUMBER	.COLUMNS	AT	...ACTIVITY...	..INPUT COST..	..LOWER LIMIT.	..UPPER LIMIT.	.REDUCED COST.
268	CEO	BS	529.00000	.	.	NONE	.
269	OEAO	BS	15653.00000	.	.	NONE	.
270	LOWNO	BS	160.00000	610.46600	.	NONE	.
271	HVO	BS	27202.00000	.	.	NONE	.
272	BIO	BS	20173.00000	.40616-	.	NONE	.
273	BLO	BS	27971.00000	1.37140-	.	NONE	.
274	MACBO	BS	17323.00000	.24543-	.	NONE	.
275	RE-TO	BS	115023.80000	.	.	NONE	.
276	ETO	BS	97944.55000	.	.	NONE	.
277	CN-T1	BS	10000.00000	.	.	NONE	.
278	CN-T2	BS	10000.00000	.	.	NONE	.
279	CN-T3	BS	10000.00000	.	.	NONE	.
280	CN-T4	BS	10000.00000	.	.	NONE	.
281	CN-T5	BS	10000.00000	.	.	NONE	.
282	WO1	BS	.	25.51000	.	NONE	.
283	WR1	LL	.	2.55000-	.	NONE	24.28705-
284	CO1	BS	80.00000	82.67000	.	NONE	.
285	CR1	LL	.	14.49000	.	NONE	137.51985-
286	AO1	BS	80.00000	119.34000	.	NONE	.
287	GO1	LL	.	45.58090-	.	NONE	43.70194-
288	GR1	LL	.	59.87000-	.	NONE	29.10672-
289	HC1	LL	.	63.37000	.	NONE	71.48956-
290	CF-E1	LL	.	.	.	NONE	1.42550-
291	BS1	BS	3610.40000	.13330-	.	NONE	.
292	LB1	LL	.	610.46600	.	NONE	21.13570-
293	BL1	BS	1435.07258	1.24340-	.	NONE	.
294	MAPU1	BS	6164.52500	.	.	NONE	.
295	BI1	LL	.	.56034-	.	NONE	.17813-
296	MACB1	BS	20456.00000	.	.	NONE	.
297	CF-F1	BS	4729.45242	.	.	NONE	.
298	ET1	BS	89007.21024	.	.	NONE	.
299	TEST1	BS	7688.82236	.09070-	.	NONE	.
300	CE1	LL	.	.	.	NONE	.34856-
301	ITB11	BS	5400.00000	.	.	NONE	.
302	ITB21	BS	744.18400	.	.	NONE	.
303	ITB31	LL	.	.	.	NONE	.03020-
304	ITB41	LL	.	.	.	NONE	.09060-
305	ITB51	LL	.	.	.	NONE	.15099-
306	ITB61	LL	.	.	.	NONE	.21139-
307	ITB71	LL	.	.	.	NONE	.33219-
308	ITB81	LL	.	.	.	NONE	.42279-
309	ITB91	LL	.	.	.	NONE	.51338-
310	IT101	LL	.	.	.	NONE	.66438-
311	IT111	LL	.	.	.	NONE	.81537-
312	IT121	LL	.	.	.	NONE	.93617-
313	IT131	LL	.	.	.	NONE	1.02677-
314	IT141	LL	.	.	.	NONE	1.14756-
315	IT151	LL	.	.	.	NONE	1.17776-
316	ITAXP	BS	81.86024	.95230-	.	NONE	.

NUMBER	.COLUMNS	AT	...ACTIVITY...	..INPUT COST..	..LOWER LIMIT.	..UPPER LIMIT.	.REDUCED COST.
317	GP-T1	BS	16969.60000	.	.	NONE	.
318	OE-T1	BS	11978.73935	.	.	NONE	.
319	NB-T1	BS	4990.86065	.	.	NONE	.
320	NI-T1	BS	4909.00041	.00010	.	NONE	.
321	RE-T1	BS	109932.80041	.	.	NONE	.
322	WO2	LL	.	24.30000	.	NONE	20.41601-
323	WR2	LL	.	2.43000-	.	NONE	55.78150-
324	CO2	BS	80.00000	78.74000	.	NONE	.
325	CR2	LL	.	13.80000	.	NONE	145.99873-
326	AO2	BS	80.00000	113.66000	.	NONE	.
327	GO2	LL	.	43.41040-	.	NONE	120.01454-
328	GR2	LL	.	57.01580-	.	NONE	91.59526-
329	HC2	BS	.	60.35240	.	NONE	.
330	CF-E2	LL	.	.	.	NONE	1.07695-
331	BS2	BS	3610.40000	.12690-	.	NONE	.
332	LB2	LL	.	610.46600	.	NONE	4.57648-
333	BL2	BS	3579.80000	1.12080-	.	NONE	.
334	MAPU2	BS	3579.80000	.07669	.	NONE	.
335	BI2	LL	.	.66869-	.	NONE	.17767-
336	MACB2	BS	20456.00000	.	.	NONE	.
337	CF-F2	LL	.	.	.	NONE	.36843-
338	ET2	BS	82586.25157	.	.	NONE	.
339	TEST2	BS	12453.58378	.08640-	.	NONE	.
340	CE2	LL	.	.	.	NONE	.28685-
341	ITB12	BS	5228.80648	.	.	NONE	.
342	ITB22	LL	.	.	.	NONE	.28866-
343	ITB32	LL	.	.	.	NONE	.31513-
344	ITB42	LL	.	.	.	NONE	.36765-
345	ITB52	LL	.	.	.	NONE	.42017-
346	ITB62	LL	.	.	.	NONE	.47269-
347	ITB72	LL	.	.	.	NONE	.57773-
348	ITB82	LL	.	.	.	NONE	.65651-
349	ITB92	LL	.	.	.	NONE	.73529-
350	IT102	LL	.	.	.	NONE	.86659-
351	IT112	LL	.	.	.	NONE	.99790-
352	IT122	LL	.	.	.	NONE	1.10294-
353	IT132	LL	.	.	.	NONE	1.18172-
354	IT142	LL	.	.	.	NONE	1.28676-
355	IT152	LL	.	.	.	NONE	1.31302-
356	ITAXP2	BS	.	.90700-	.	NONE	.
357	GP-T2	BS	16969.60000	.	.	NONE	.
358	OE-T2	BS	12455.50773	.	.	NONE	.
359	NB-T2	BS	4514.09227	.	.	NONE	.
360	NI-T2	BS	4514.09227	.00010	.	NONE	.
361	RE-T2	BS	104446.89268	.	.	NONE	.
362	WO3	LL	.	23.14000	.	NONE	20.53587-
363	WR3	LL	.	2.32000-	.	NONE	48.34199-
364	CO3	BS	85.52080	74.99000	.	NONE	.
365	CR3	LL	.	13.14000	.	NONE	120.49498-
366	AO3	BS	85.52080	108.25000	.	NONE	.
367	GO3	LL	.	41.34320-	.	NONE	108.08914-

NUMBER	.COLUMNS	AT	...ACTIVITY...	..INPUT COST..	..LOWER LIMIT.	..UPPER LIMIT.	.REDUCED COST.
368	GR3	LL	.	45.56010-	.	NONE	95.31572-
369	HC3	BS	.	57.78500	.	NONE	.
370	CF-E3	LL	.	.	.	NONE	.79010-
371	BS3	BS	3859.55354	.12090-	.	NONE	.
372	LB3	BS	11.04159	610.46600	.	NONE	.
373	BL3	BS	12945.27901	1.00060-	.	NONE	.
374	MAPU3	BS	4991.46764	.27620	.	NONE	.
375	BI3	LL	.	.73813-	.	NONE	.17734-
376	MACB3	BS	21867.66764	.	.	NONE	.
377	CF-F3	LL	.	.	.	NONE	.04459-
378	ET3	BS	73755.47735	.	.	NONE	.
379	TEST3	BS	17308.06501	.08230-	.	NONE	.
380	CE3	LL	.	.	.	NONE	.22663-
381	ITB13	BS	5400.00000	.	.	NONE	.
382	ITB23	BS	.	.	.	NONE	.
383	ITB33	LL	.	.	.	NONE	.00872-
384	ITB43	LL	.	.	.	NONE	.02615-
385	ITB53	LL	.	.	.	NONE	.04358-
386	ITB63	LL	.	.	.	NONE	.06102-
387	ITB73	LL	.	.	.	NONE	.09588-
388	ITB83	LL	.	.	.	NONE	.12203-
389	ITB93	LL	.	.	.	NONE	.14818-
390	IT103	LL	.	.	.	NONE	.19176-
391	IT113	LL	.	.	.	NONE	.23535-
392	IT123	LL	.	.	.	NONE	.27021-
393	IT133	LL	.	.	.	NONE	.29636-
394	IT143	LL	.	.	.	NONE	.33123-
395	IT153	LL	.	.	.	NONE	.33995-
396	ITAXP3	LL	.	.86380-	.	NONE	1.42434-
397	GP-T3	BS	18140.67133	.	.	NONE	.
398	OE-T3	BS	13468.84352	.	.	NONE	.
399	NB-T3	BS	4671.82781	.	.	NONE	.
400	NI-T3	BS	4671.82781	.00010	.	NONE	.
401	RE-T3	BS	99118.72049	.	.	NONE	.
402	WO4	BS	.	22.04000	.	NONE	.
403	WR4	LL	.	2.20000-	.	NONE	22.38171-
404	CO4	BS	111.03483	71.42000	.	NONE	.
405	CR4	LL	.	12.51000	.	NONE	97.58820-
406	AG4	BS	111.03483	103.09000	.	NONE	.
407	GO4	LL	.	39.37450-	.	NONE	33.80497-
408	GR4	LL	.	51.71510-	.	NONE	30.36458-
409	HC4	LL	.	54.74260	.	NONE	52.00367-
410	CF-E4	LL	.	.	.	NONE	.56347-
411	BS4	BS	5011.00167	.11520-	.	NONE	.
412	LB4	BS	51.02806	610.46600	.	NONE	.
413	BL4	BS	48578.95897	.89100-	.	NONE	.
414	MAPU4	BS	10350.77905	.50929	.	NONE	.
415	BI4	LL	.	.77468-	.	NONE	.16882-
416	MACB4	BS	28391.60485	.	.	NONE	.
417	CF-F4	LL	.	.	.	NONE	.06581-
418	ET4	BS	58046.62665	.	.	NONE	.

NUMBER	.COLUMNS	AT	...ACTIVITY...	..INPUT COST..	..LOWER LIMIT.	..UPPER LIMIT.	.REDUCED COST.
419	TEST4	BS	19724.31803	.07840-	.	NONE	.
420	CE4	LL	.	.	.	NONE	.16967-
421	ITB14	BS	5400.00000	.	.	NONE	.
422	ITB24	BS	2100.00000	.	.	NONE	.
423	ITB34	BS	40.39043	.	.	NONE	.
424	ITB44	LL	.	.	.	NONE	.04057-
425	ITB54	LL	.	.	.	NONE	.08113-
426	ITB64	LL	.	.	.	NONE	.12170-
427	ITB74	LL	.	.	.	NONE	.20283-
428	ITB84	LL	.	.	.	NONE	.26367-
429	ITB94	LL	.	.	.	NONE	.32452-
430	IT104	LL	.	.	.	NONE	.42594-
431	IT114	LL	.	.	.	NONE	.52735-
432	IT124	LL	.	.	.	NONE	.60848-
433	IT134	LL	.	.	.	NONE	.66933-
434	IT144	LL	.	.	.	NONE	.75046-
435	IT154	LL	.	.	.	NONE	.77074-
436	ITAXP4	BS	235.84685	.82270-	.	NONE	.
437	GP-T4	BS	23552.70716	.	.	NONE	.
438	OE-T4	BS	16374.75468	.	.	NONE	.
439	NB-T4	BS	7177.95248	.	.	NONE	.
440	NI-T4	BS	6942.10563	.00010	.	NONE	.
441	RE-T4	BS	96060.82612	.	.	NONE	.
442	W05	LL	.	20.99000	.	NONE	41.04825-
443	WR5	BS	.	2.10000-	.	NONE	.
444	C05	BS	269.77609	68.02000	.	NONE	.
445	CR5	LL	.	11.92000	.	NONE	17.59615-
446	A05	BS	269.77609	98.18000	.	NONE	.
447	G05	LL	.	37.49960-	.	NONE	86.88582-
448	GR5	LL	.	49.25250-	.	NONE	25.69606-
449	HC5	LL	.	52.13580	.	NONE	27.72961-
450	CF-E5	LL	.	.	.	NONE	.39380-
451	BS5	BS	12174.99483	.10970-	.	NONE	.
452	LB5	BS	317.48252	610.46600	.	NONE	.
453	BL5	BS	292918.83087	.78353-	.	NONE	.
454	MAPU5	BS	45558.67160	.78353	.	NONE	.
455	BI5	LL	.	.78353-	.	NONE	.16047-
456	MACB5	BS	68981.74560	.	.	NONE	.
457	CE5	LL	.	.	.	NONE	1.03570-
458	CF-E5	LL	.	.	.	NONE	.09170-
459	TEST5	LL	.	.90110-	.	NONE	.50733-
460	ITB15	BS	5400.00000	.	.	NONE	.
461	ITB25	BS	2100.00000	.	.	NONE	.
462	ITB35	BS	2100.00000	.	.	NONE	.
463	ITB45	BS	4300.00000	.	.	NONE	.
464	ITB55	BS	4100.00000	.	.	NONE	.
465	ITB65	BS	4200.00000	.	.	NONE	.
466	ITB75	BS	4400.00000	.	.	NONE	.
467	ITB85	LL	.	.	.	NONE	.02741-
468	ITB95	LL	.	.	.	NONE	.08199-
469	IT105	LL	.	.	.	NONE	.17296-

NUMBER	.COLUMNS	AT	...ACTIVITY...	..INPUT COST..	..LOWER LIMIT.	..UPPER LIMIT.	.REDUCED COST.
470	IT115	LL	.	.	.	NONE	.26393-
471	IT125	LL	.	.	.	NONE	.33671-
472	IT135	LL	.	.	.	NONE	.39129-
473	IT145	LL	.	.	.	NONE	.46407-
474	IT155	LL	.	.	.	NONE	.48226-
475	ITAXP5	BS	3465.00000	.78350-	.	NONE	.
476	GP-T5	BS	57224.90370	.	.	NONE	.
477	OE-T5	BS	27666.25600	.	.	NONE	.
478	NB-T5	BS	29558.64770	.	.	NONE	.
479	NI-T5	BS	26093.64770	.00010	.	NONE	.
480	CN-TO	LL	.	.	.	NONE	.00010-
481	RE-T5	BS	112154.47383	.00010	.	NONE	.

APPENDIX C(2)

INITIAL RESULTS FOR THE 320 ACRE SOLE PROPRIETORSHIP

NUMBER	...ROW..	AT	...ACTIVITY...	SLACK ACTIVITY	..LOWER LIMIT.	..UPPER LIMIT.	.DUAL ACTIVITY
1	OBJ1	BS	283404.50907	283404.50907-	NONE	NONE	1.00000
2	OBJ2	BS	250563.01946	250563.01946-	NONE	NONE	.
3	OBJ3	BS	89122.41945	89122.41945-	NONE	NONE	.
4	CAINT	UL	1451.00000	.	NONE	1451.00000	2.48724-
5	OAINT	EQ	38575.00000	.	38575.00000	38575.00000	.59255-
6	HVINT	EQ	53410.00000	.	53410.00000	53410.00000	.59255-
7	MAINT	UL	37820.00000	.	NONE	37820.00000	1.91024-
8	LAINT	UL	320.00000	.	NONE	320.00000	1214.30131-
9	IDINT	LL	38135.00000	.	38135.00000	NONE	2.99621
10	LDINT	LL	61602.00000	.	61602.00000	NONE	2.82370
11	REINT	LL	.	.	.	NONE	.59255
12	AVEQT	LL	.	.	.	NONE	.59245
13	CNCO1	LL	15000.00000	.	15000.00000	NONE	1.83479
14	CNCO2	LL	15000.00000	.	15000.00000	NONE	1.61481
15	CNCO3	LL	15000.00000	.	15000.00000	NONE	1.37521
16	CNCO4	LL	15000.00000	.	15000.00000	NONE	1.18178
17	CNCO5	LL	15000.00000	.	15000.00000	NONE	1.03395
18	LAND1	UL	.	.	NONE	.	55.59666-
19	LREN1	BS	716.97427-	716.97427	NONE	.	.
20	AUM1	LL	.	.	.	NONE	81.59468
21	CAP1	UL	.	.	NONE	.	.63103-
22	EQT1	LL	.	.	.	NONE	.59245
23	CF1	LL	.	.	.	NONE	1.89469
24	LNTF1	UL	.	.	NONE	.	1.89469-
25	MARE1	UL	.	.	NONE	.	.56561-
26	MACC1	LL	.	.	.	NONE	1.32908
27	TAXI1	UL	.	.	NONE	.	.45555-
28	TAXP1	UL	.	.	NONE	.	2.84719-
29	ILM11	UL	5400.00000	.	NONE	5400.00000	.45555-
30	ILM21	UL	2100.00000	.	NONE	2100.00000	.14236-
31	ILM31	UL	2100.00000	.	NONE	2100.00000	.11389-
32	ILM41	UL	4300.00000	.	NONE	4300.00000	.05694-
33	ILM51	BS	1004.76712	3095.23288	NONE	4100.00000	.
34	ILM61	BS	.	4200.00000	NONE	4200.00000	.
35	ILM71	BS	.	4400.00000	NONE	4400.00000	.
36	ILM81	BS	.	5300.00000	NONE	5300.00000	.
37	ILM91	BS	.	5300.00000	NONE	5300.00000	.
38	IL101	BS	.	10600.00000	NONE	10600.00000	.
39	IL111	BS	.	14200.00000	NONE	14200.00000	.
40	IL121	BS	.	25600.00000	NONE	25600.00000	.
41	IL131	BS	.	23800.00000	NONE	23800.00000	.
42	IL141	BS	.	53000.00000	NONE	53000.00000	.
43	GPSR1	BS	38021.14532	38021.14532-	NONE	NONE	.
44	GPTR1	LL	.	.	.	NONE	.00020
45	OESR1	BS	28827.64554	28827.64554-	NONE	NONE	.
46	OETR1	UL	.	.	NONE	.	.00020-
47	NITS1	BS	9193.49977	9193.49977-	NONE	NONE	.
48	NITT1	LL	.	.	.	NONE	.00020
49	TA-P1	BS	1245.76274	1245.76274-	NONE	NONE	.

NUMBER	...ROW..	AT	...ACTIVITY...	SLACK ACTIVITY	..LOWER LIMIT.	..UPPER LIMIT.	.DUAL ACTIVITY
50	NATS1	BS	7947.73703	7947.73703-	NONE	NONE	.
51	NATT1	LL	.	.	.	NONE	.00020
52	CABS1	BS	.	.	NONE	NONE	.
53	MABS1	BS	45832.57994	45832.57994-	NONE	NONE	.
54	OABS1	BS	38575.00000	38575.00000-	NONE	NONE	.
55	ALGS1	BS	8198.40000	8198.40000-	NONE	NONE	.
56	LABS1	BS	220979.63051	220979.63051-	NONE	NONE	.
57	HVR1	BS	53410.00000	53410.00000-	NONE	NONE	.
58	TABS1	BS	376570.01046	376570.01046-	NONE	NONE	.
59	SDBS1	BS	38075.11568	38075.11568-	NONE	NONE	.
60	IDBS1	BS	32365.55585	32365.55585-	NONE	NONE	.
61	LDES1	BS	61429.51440	61429.51440-	NONE	NONE	.
62	TDES1	BS	131870.18593	131870.18593-	NONE	NONE	.
63	R/EB1	BS	229388.33703	229388.33703-	NONE	NONE	.
64	R/ET1	LL	.	.	.	NONE	.00010
65	R/EL1	BS	8198.40000	8198.40000-	NONE	NONE	.
66	R/ES1	BS	237586.73703	237586.73703-	NONE	NONE	.
67	LAND2	UL	.	.	NONE	.	32.23004-
68	LREN2	BS	716.97427-	716.97427	NONE	.	.
69	AUM2	LL	.	.	.	NONE	34.28370
70	CAP2	UL	.	.	NONE	.	.59978-
71	EQT2	LL	.	.	.	NONE	.59245
72	CF2	LL	.	.	.	NONE	1.61471
73	LNTF2	UL	.	.	NONE	.	1.59111-
74	MARE2	UL	.	.	NONE	.	.58851-
75	MACC2	LL	.	.	.	NONE	.92591
76	TAXI2	UL	.	.	NONE	.	.35307-
77	TAXP2	UL	.	.	NONE	.	2.52191-
78	ILM12	UL	5400.00000	.	NONE	5400.00000	.35307-
79	ILM22	UL	2100.00000	.	NONE	2100.00000	.07566-
80	ILM32	UL	2100.00000	.	NONE	2100.00000	.05044-
81	ILM42	BS	426.60257	3873.39743	NONE	4300.00000	.
82	ILM52	BS	.	4100.00000	NONE	4100.00000	.
83	ILM62	BS	.	4200.00000	NONE	4200.00000	.
84	ILM72	BS	.	4400.00000	NONE	4400.00000	.
85	ILM82	BS	.	5300.00000	NONE	5300.00000	.
86	ILM92	BS	.	5300.00000	NONE	5300.00000	.
87	IL102	BS	.	10600.00000	NONE	10600.00000	.
88	IL112	BS	.	14200.00000	NONE	14200.00000	.
89	IL122	BS	.	25600.00000	NONE	25600.00000	.
90	IL132	BS	.	23800.00000	NONE	23800.00000	.
91	IL142	BS	.	53000.00000	NONE	53000.00000	.
92	GPSR2	BS	38021.14532	38021.14532-	NONE	NONE	.
93	GPTR2	LL	.	.	.	NONE	.00020
94	OESR2	BS	28635.16787	28635.16787-	NONE	NONE	.
95	OETR2	UL	.	.	NONE	.	.00020-
96	NITS2	BS	9385.97744	9385.97744-	NONE	NONE	.
97	NITT2	LL	.	.	.	NONE	.00020
98	TA-P2	BS	542.72436	542.72436-	NONE	NONE	.
99	NATS2	BS	8843.25308	8843.25308-	NONE	NONE	.
100	NATT2	LL	.	.	.	NONE	.00020

NUMBER	...ROW..	AT	...ACTIVITY...	SLACK ACTIVITY	..LOWER LIMIT.	..UPPER LIMIT.	.DUAL ACTIVITY
101	CABS2	BS	.	.	NONE	NONE	.
102	MABS2	BS	45832.57994	45832.57994-	NONE	NONE	.
103	OABS2	BS	38575.00000	38575.00000-	NONE	NONE	.
104	ALBS2	BS	17748.49722	17748.49722-	NONE	NONE	.
105	LABS2	BS	220979.63051	220979.63051-	NONE	NONE	.
106	HVR2	BS	53410.00000	53410.00000-	NONE	NONE	.
107	TABS2	BS	386120.10768	386120.10768-	NONE	NONE	.
108	SDBS2	BS	42345.94988	42345.94988-	NONE	NONE	.
109	IDBS2	BS	25788.79375	25788.79375-	NONE	NONE	.
110	LDES2	BS	69253.08949	69253.08949-	NONE	NONE	.
111	TDES2	BS	137387.83312	137387.83312-	NONE	NONE	.
112	R/EB2	BS	223231.59012	223231.59012-	NONE	NONE	.
113	R/ET2	LL	.	.	.	NONE	.00010
114	R/EL2	BS	17748.49722	17748.49722-	NONE	NONE	.
115	R/ES2	BS	240980.08734	240980.08734-	NONE	NONE	.
116	LAND3	UL	.	.	NONE	.	30.85928-
117	LREN3	BS	833.53685-	833.53685	NONE	.	.
118	AUM3	LL	.	.	.	NONE	28.02908
119	CAP3	UL	.	.	NONE	.	.56012-
120	EQI3	LL	.	.	.	NONE	.59245
121	CF3	LL	.	.	.	NONE	1.37511
122	LNTF3	UL	.	.	NONE	.	1.32366-
123	MARF3	UL	.	.	NONE	.	.49261-
124	MACC3	LL	.	.	.	NONE	.55485
125	TAXI3	UL	.	.	NONE	.	.35394-
126	TAXP3	UL	.	.	NONE	.	2.23911-
127	ILM13	UL	5400.00000	.	NONE	5400.00000	.35394-
128	ILM23	UL	2100.00000	.	NONE	2100.00000	.10764-
129	ILM33	UL	2100.00000	.	NONE	2100.00000	.08524-
130	ILM43	UL	4300.00000	.	NONE	4300.00000	.04046-
131	ILM53	BS	.	4100.00000	NONE	4100.00000	.
132	ILM63	BS	.	4200.00000	NONE	4200.00000	.
133	ILM73	BS	.	4400.00000	NONE	4400.00000	.
134	ILM83	BS	.	5300.00000	NONE	5300.00000	.
135	ILM93	BS	.	5300.00000	NONE	5300.00000	.
136	IL103	BS	.	10600.00000	NONE	10600.00000	.
137	IL113	BS	.	14200.00000	NONE	14200.00000	.
138	IL123	BS	.	25600.00000	NONE	25600.00000	.
139	IL133	BS	.	23800.00000	NONE	23800.00000	.
140	IL143	BS	.	53000.00000	NONE	53000.00000	.
141	GPSR3	BS	44202.45931	44202.45931-	NONE	NONE	.
142	GPTR3	LL	.	.	.	NONE	.00020
143	OESR3	BS	30392.74334	30392.74334-	NONE	NONE	.
144	OETR3	UL	.	.	NONE	.	.00020-
145	NITS3	BS	13809.71596	13809.71596-	NONE	NONE	.
146	NITT3	LL	.	.	.	NONE	.00020
147	TA-P3	BS	1085.00000	1085.00000-	NONE	NONE	.
148	NATS3	BS	12724.71596	12724.71596-	NONE	NONE	.
149	NATT3	LL	.	.	.	NONE	.00020
150	CABS3	BS	.	.	NONE	NONE	.
151	MABS3	BS	53283.84332	53283.84332-	NONE	NONE	.

JMBER	...ROW..	AT	...ACTIVITY...	SLACK ACTIVITY	..LOWER LIMIT.	..UPPER LIMIT.	.DUAL ACTIVITY
152	OABS3	BS	38575.00000	38575.00000-	NONE	NONE	.
153	ALGS3	BS	27682.17567	27682.17567-	NONE	NONE	.
154	LABS3	BS	272536.96031	272536.96031-	NONE	NONE	.
155	HVR3	BS	53410.00000	53410.00000-	NONE	NONE	.
156	TABS3	BS	445487.97930	445487.97930-	NONE	NONE	.
157	SOBS3	BS	42947.84346	42947.84346-	NONE	NONE	.
158	IOBS3	BS	18289.54600	18289.54600-	NONE	NONE	.
159	LOBS3	BS	126463.75899	126463.75899-	NONE	NONE	.
160	TOBS3	BS	187701.14845	187701.14845-	NONE	NONE	.
161	R/EB3	BS	220956.30608	220956.30608-	NONE	NONE	.
162	R/ET3	LL	.	.	.	NONE	.00010
163	R/EL3	BS	27682.17567	27682.17567-	NONE	NONE	.
164	R/ES3	BS	248638.48175	248638.48175-	NONE	NONE	.
165	LAND4	UL	.	.	NONE	.	26.05910-
166	LREN4	BS	1295.49357-	1295.49357	NONE	.	.
167	AUM4	LL	.	.	.	NONE	45.82701
168	CAP4	UL	.	.	NONE	.	.51515-
169	EQT4	LL	.	.	.	NONE	.59245
170	CF4	LL	.	.	.	NONE	1.18168
171	LNTF4	UL	.	.	NONE	.	1.10680-
172	MARE4	UL	.	.	NONE	.	.39818-
173	MACC4	LL	.	.	.	NONE	.19933
174	TAXI4	UL	.	.	NONE	.	.44101-
175	TAXP4	UL	.	.	NONE	.	2.00458-
176	ILM14	UL	5400.00000	.	NONE	5400.00000	.44101-
177	ILM24	UL	2100.00000	.	NONE	2100.00000	.22050-
178	ILM34	UL	2100.00000	.	NONE	2100.00000	.20046-
179	ILM44	UL	4300.00000	.	NONE	4300.00000	.16037-
180	ILM54	UL	4100.00000	.	NONE	4100.00000	.12027-
181	ILM64	UL	4200.00000	.	NONE	4200.00000	.08018-
182	ILM74	BS	3250.68828	1149.31172	NONE	4400.00000	.
183	ILM84	BS	.	5300.00000	NONE	5300.00000	.
184	ILM94	BS	.	5300.00000	NONE	5300.00000	.
185	IL104	BS	.	10600.00000	NONE	10600.00000	.
186	IL114	BS	.	14200.00000	NONE	14200.00000	.
187	IL124	BS	.	25600.00000	NONE	25600.00000	.
188	IL134	BS	.	23800.00000	NONE	23800.00000	.
189	IL144	BS	.	53000.00000	NONE	53000.00000	.
190	GPSR4	BS	68700.02417	68700.02417-	NONE	NONE	.
191	GPTR4	LL	.	.	.	NONE	.00020
192	OESR4	BS	41337.73692	41337.73692-	NONE	NONE	.
193	OETR4	UL	.	.	NONE	.	.00020-
194	NITS4	BS	27362.28725	27362.28725-	NONE	NONE	.
195	NITT4	LL	.	.	.	NONE	.00020
196	TA-P4	BS	3212.15142	3212.15142-	NONE	NONE	.
197	NATS4	BS	24150.13583	24150.13583-	NONE	NONE	.
198	NATT4	LL	.	.	.	NONE	.00020
199	CABS4	BS	.	.	NONE	NONE	.
200	MABS4	BS	82814.42664	82814.42664-	NONE	NONE	.
201	OABS4	BS	38575.00000	38575.00000-	NONE	NONE	.
202	ALGS4	BS	39689.27404	39689.27404-	NONE	NONE	.

NUMBER	...ROW..	AT	...ACTIVITY...	SLACK ACTIVITY	..LOWER LIMIT.	..UPPER LIMIT.	.DUAL ACTIVITY
203	LABS4	BS	445576.70846	445576.70846-	NONE	NONE	.
204	HVR4	BS	53410.00000	53410.00000-	NONE	NONE	.
205	TABS4	BS	660065.40914	660065.40914-	NONE	NONE	.
206	SDBS4	BS	30203.85034	30203.85034-	NONE	NONE	.
207	IDBS4	BS	9743.87385	9743.87385-	NONE	NONE	.
208	LDES4	BS	337913.49469	337913.49469-	NONE	NONE	.
209	TDES4	BS	377861.21889	377861.21889-	NONE	NONE	.
210	R/EB4	BS	230106.44191	230106.44191-	NONE	NONE	.
211	R/ET4	LL	.	.	.	NONE	.00010
212	R/EL4	BS	39689.27404	39689.27404-	NONE	NONE	.
213	R/ES4	BS	269795.71594	269795.71594-	NONE	NONE	.
214	LAND5	UL	.	.	NONE	.	79.63391-
215	LREN5	BS	2245.31449-	2245.31449	NONE	.	.
216	AUM5	LL	.	.	.	NONE	27.31980
217	CAP5	UL	.	.	NONE	.	.47072-
218	EQI5	LL	.	.	.	NONE	.59245
219	CF5	LL	.	.	.	NONE	1.03385
220	LNTF5	UL	.	.	NONE	.	.93164-
221	MARE5	UL	.	.	NONE	.	.04818-
222	MACC5	LL	.	.	.	NONE	.09993
223	TAXI5	UL	.	.	NONE	.	.57124-
224	TAXP5	UL	.	.	NONE	.	1.81755-
225	ILM15	UL	5400.00000	.	NONE	5400.00000	.57124-
226	ILM25	UL	2100.00000	.	NONE	2100.00000	.37131-
227	ILM35	UL	2100.00000	.	NONE	2100.00000	.35314-
228	ILM45	UL	4300.00000	.	NONE	4300.00000	.31678-
229	ILM55	UL	4100.00000	.	NONE	4100.00000	.28043-
230	ILM65	UL	4200.00000	.	NONE	4200.00000	.24408-
231	ILM75	UL	4400.00000	.	NONE	4400.00000	.17138-
232	ILM85	UL	5300.00000	.	NONE	5300.00000	.11685-
233	ILM95	UL	5300.00000	.	NONE	5300.00000	.06233-
234	IL105	BS	.	10600.00000	NONE	10600.00000	.
235	IL115	BS	.	14200.00000	NONE	14200.00000	.
236	IL125	BS	.	25600.00000	NONE	25600.00000	.
237	IL135	BS	.	23800.00000	NONE	23800.00000	.
238	IL145	BS	.	53000.00000	NONE	53000.00000	.
239	GPSR5	BS	119069.02720	119069.02720-	NONE	NONE	.
240	GPTR5	LL	.	.	.	NONE	.00020
241	OESR5	BS	77338.44965	77338.44965-	NONE	NONE	.
242	OETR5	UL	.	.	NONE	.	.00020-
243	NITS5	BS	41730.57755	41730.57755-	NONE	NONE	.
244	NITT5	LL	.	.	.	NONE	.00020
245	TA-P5	BS	6274.00000	6274.00000-	NONE	NONE	.
246	NATS5	BS	35456.57755	35456.57755-	NONE	NONE	.
247	NATT5	LL	.	.	.	NONE	.00020
248	CABS5	BS	.	.	NONE	NONE	.
249	MABS5	BS	143531.72853	143531.72853-	NONE	NONE	.
250	OABS5	BS	38575.00000	38575.00000-	NONE	NONE	.
251	ALGS5	BS	58992.12827	58992.12827-	NONE	NONE	.
252	LABS5	BS	815593.69256	815593.69256-	NONE	NONE	.
253	HVR5	BS	53410.00000	53410.00000-	NONE	NONE	.

NUMBER	...ROW..	AT	...ACTIVITY...	SLACK ACTIVITY	..LOWER LIMIT.	..UPPER LIMIT.	.DUAL ACTIVITY
254	TABS5	BS	1110102.54936	1110102.54936-	NONE	NONE	.
255	SDBS5	BS	.	.	NONE	NONE	.
256	IDBS5	BS	.	.	NONE	NONE	.
257	LDES5	BS	782044.73974	782044.73974-	NONE	NONE	.
258	TDES5	BS	782044.73974	782044.73974-	NONE	NONE	.
259	R/EB5	BS	250563.01946	250563.01946-	NONE	NONE	.
260	R/ET5	LL	.	.	.	NONE	.00010
261	R/EL5	BS	58992.12827	58992.12827-	NONE	NONE	.
262	R/ES5	BS	309555.14773	309555.14773-	NONE	NONE	.
263	USER1	UL	160.00000	.	NONE	160.00000	223.02446-
264	USER2	UL	160.00000	.	NONE	160.00000	218.05217-
265	USER3	UL	160.00000	.	NONE	160.00000	186.93621-
266	USER4	UL	160.00000	.	NONE	160.00000	154.48273-
267	USER5	UL	160.00000	.	NONE	160.00000	71.54090-

NUMBER	.COLUMNS	AT	...ACTIVITY...	..INPUT COST..	..LOWER LIMIT.	..UPPER LIMIT.	.REDUCED COST.
268	CEO	BS	1451.00000	.	.	NONE	.
269	DEAO	BS	38575.00000	.	.	NONE	.
270	LOWNO	BS	320.00000	610.46600	.	NONE	.
271	HVO	BS	53410.00000	.	.	NONE	.
272	BIO	BS	38135.00000	.40616-	.	NONE	.
273	BLO	BS	61602.00000	1.37140-	.	NONE	.
274	MACBO	BS	37820.00000	.24543-	.	NONE	.
275	RE-TO	BS	236440.60000	.	.	NONE	.
276	ETO	BS	201972.60000	.	.	NONE	.
277	CN-T1	BS	15000.00000	.	.	NONE	.
278	CN-T2	BS	15000.00000	.	.	NONE	.
279	CN-T3	BS	15000.00000	.	.	NONE	.
280	CN-T4	BS	15000.00000	.	.	NONE	.
281	CN-T5	BS	15000.00000	.	.	NONE	.
282	WO1	BS	.	25.51000	.	NONE	.
283	WR1	LL	.	2.55000-	.	NONE	14.88067-
284	CO1	BS	179.24357	82.67000	.	NONE	.
285	CR1	LL	.	14.49000	.	NONE	115.64003-
286	AO1	BS	179.24357	119.34000	.	NONE	.
287	GO1	LL	.	45.58090-	.	NONE	30.95409-
288	GR1	LL	.	59.87000-	.	NONE	11.23662-
289	HC1	LL	.	63.37000	.	NONE	74.86995-
290	CF-E1	LL	.	.	.	NONE	1.30224-
291	BS1	BS	8089.26215	.13330-	.	NONE	.
292	LB1	BS	38.48713	610.46600	.	NONE	.
293	BL1	LL	.	1.24340-	.	NONE	.00080-
294	MAPU1	BS	14631.07994	.	.	NONE	.
295	BI1	LL	.	.56034-	.	NONE	.17437-
296	MACB1	BS	45832.57994	.	.	NONE	.
297	CF-F1	BS	40263.51046	.	.	NONE	.
298	ET1	BS	161583.41954	.	.	NONE	.
299	TEST1	BS	38075.11568	.09070-	.	NONE	.
300	CE1	LL	.	.	.	NONE	.27998-
301	ITB11	BS	5400.00000	.	.	NONE	.
302	ITB21	BS	2100.00000	.	.	NONE	.
303	ITB31	BS	2100.00000	.	.	NONE	.
304	ITB41	BS	4300.00000	.	.	NONE	.
305	ITB51	BS	1004.76712	.	.	NONE	.
306	ITB61	LL	.	.	.	NONE	.05694-
307	ITB71	LL	.	.	.	NONE	.17083-
308	ITB81	LL	.	.	.	NONE	.25625-
309	ITB91	LL	.	.	.	NONE	.34166-
310	IT101	LL	.	.	.	NONE	.48402-
311	IT111	LL	.	.	.	NONE	.62638-
312	IT121	LL	.	.	.	NONE	.74027-
313	IT131	LL	.	.	.	NONE	.82568-
314	IT141	LL	.	.	.	NONE	.93957-
315	IT151	LL	.	.	.	NONE	.96804-
316	ITAXP	BS	1245.76274	.95230-	.	NONE	.

NUMBER	COLUMNS	AT	...ACTIVITY...	..INPUT COST..	..LOWER LIMIT.	..UPPER LIMIT.	.REDUCED COST.
317	GP-T1	BS	38021.14532	.	.	NONE	.
318	OE-T1	BS	28827.64554	.	.	NONE	.
319	NB-T1	BS	9193.49977	.	.	NONE	.
320	NI-T1	BS	7947.73703	.00010	.	NONE	.
321	RE-T1	BS	229388.33703	.	.	NONE	.
322	WO2	LL	.	24.30000	.	NONE	16.98231-
323	WR2	LL	.	2.43000-	.	NONE	48.66934-
324	CO2	BS	179.24357	78.74000	.	NONE	.
325	CR2	LL	.	13.80000	.	NONE	123.05806-
326	AO2	BS	179.24357	113.66000	.	NONE	.
327	GO2	LL	.	43.41040-	.	NONE	101.65101-
328	GR2	LL	.	57.01580-	.	NONE	77.73035-
329	HC2	BS	.	60.35240	.	NONE	.
330	CF-F2	LL	.	.	.	NONE	1.02226-
331	BS2	BS	8089.26215	.12690-	.	NONE	.
332	LB2	LL	.	610.46600	.	NONE	7.30963-
333	BL2	BS	8020.70149	1.12080-	.	NONE	.
334	MAPU2	BS	8020.70149	.07669	.	NONE	.
335	BI2	LL	.	.66869-	.	NONE	.17130-
336	MACB2	BS	45832.57994	.	.	NONE	.
337	CF-F2	LL	.	.	.	NONE	.30358-
338	ET2	BS	153236.26514	.	.	NONE	.
339	TEST2	BS	42345.94988	.08640-	.	NONE	.
340	CF2	LL	.	.	.	NONE	.23961-
341	ITB12	BS	5400.00000	.	.	NONE	.
342	ITB22	BS	2100.00000	.	.	NONE	.
343	ITB32	BS	2100.00000	.	.	NONE	.
344	ITB42	BS	426.60257	.	.	NONE	.
345	ITB52	LL	.	.	.	NONE	.05044-
346	ITB62	LL	.	.	.	NONE	.10088-
347	ITB72	LL	.	.	.	NONE	.20175-
348	ITB82	LL	.	.	.	NONE	.27741-
349	ITB92	LL	.	.	.	NONE	.35307-
350	IT102	LL	.	.	.	NONE	.47916-
351	IT112	LL	.	.	.	NONE	.60526-
352	IT122	LL	.	.	.	NONE	.70614-
353	IT132	LL	.	.	.	NONE	.78179-
354	IT142	LL	.	.	.	NONE	.88267-
355	IT152	LL	.	.	.	NONE	.90789-
356	ITAXP2	BS	542.72436	.90700-	.	NONE	.
357	GP-T2	BS	38021.14532	.	.	NONE	.
358	OE-T2	BS	28635.16787	.	.	NONE	.
359	NB-T2	BS	9385.97744	.	.	NONE	.
360	NI-T2	BS	8843.25308	.00010	.	NONE	.
361	RE-T2	BS	223231.59012	.	.	NONE	.
362	WO3	LL	.	23.14000	.	NONE	18.11808-
363	WR3	LL	.	2.32000-	.	NONE	42.81858-
364	CO3	BS	208.38421	74.99000	.	NONE	.
365	CR3	LL	.	13.14000	.	NONE	104.12081-
366	AO3	BS	208.38421	108.25000	.	NONE	.
367	GO3	LL	.	41.34320-	.	NONE	94.78902-

NUMBER	COLUMNS	AT	...ACTIVITY...	..INPUT COST..	..LOWER LIMIT.	..UPPER LIMIT.	.REDUCED COST.
368	GR3	LL	.	45.56010-	.	NONE	83.46719-
369	HC3	BS	.	57.78500	.	NONE	.
370	CF-E3	LL	.	.	.	NONE	.78266-
371	BS3	BS	-9404.37954	.12090-	.	NONE	.
372	LB3	BS	58.28129	610.46600	.	NONE	.
373	BL3	BS	57454.89466	1.00060-	.	NONE	.
374	MAPU3	BS	15471.96487	.27620	.	NONE	.
375	BI3	LL	.	.73813-	.	NONE	.16898-
376	MACB3	BS	53283.84332	.	.	NONE	.
377	CF-F3	LL	.	.	.	NONE	.05145-
378	ET3	BS	135817.66042	.	.	NONE	.
379	TEST3	BS	42947.84346	.08230-	.	NONE	.
380	CE3	LL	.	.	.	NONE	.19343-
381	ITB13	BS	5400.00000	.	.	NONE	.
382	ITB23	BS	2100.00000	.	.	NONE	.
383	ITB33	BS	2100.00000	.	.	NONE	.
384	ITB43	BS	4300.00000	.	.	NONE	.
385	ITB53	LL	.	.	.	NONE	.00432-
386	ITB63	LL	.	.	.	NONE	.04910-
387	ITB73	LL	.	.	.	NONE	.13867-
388	ITB83	LL	.	.	.	NONE	.20584-
389	ITB93	LL	.	.	.	NONE	.27301-
390	IT103	LL	.	.	.	NONE	.38497-
391	IT113	LL	.	.	.	NONE	.49692-
392	IT123	LL	.	.	.	NONE	.58649-
393	IT133	LL	.	.	.	NONE	.65366-
394	IT143	LL	.	.	.	NONE	.74323-
395	IT153	LL	.	.	.	NONE	.76562-
396	ITAXP3	BS	1085.00000	.86380-	.	NONE	.
397	GP-T3	BS	44202.45931	.	.	NONE	.
398	OE-T3	BS	30392.74334	.	.	NONE	.
399	NB-T3	BS	13809.71596	.	.	NONE	.
400	NI-T3	BS	12724.71596	.00010	.	NONE	.
401	RE-T3	BS	220956.30608	.	.	NONE	.
402	WO4	BS	.	22.04000	.	NONE	.
403	WR4	LL	.	2.20000-	.	NONE	20.01434-
404	CO4	BS	323.87339	71.42000	.	NONE	.
405	CR4	LL	.	12.51000	.	NONE	85.89719-
406	AO4	BS	323.87339	103.09000	.	NONE	.
407	GO4	LL	.	39.37450-	.	NONE	29.74872-
408	GR4	LL	.	51.71510-	.	NONE	27.14327-
409	HC4	LL	.	54.74260	.	NONE	46.87429-
410	CF-E4	LL	.	.	.	NONE	.58923-
411	BS4	BS	14616.40624	.11520-	.	NONE	.
412	LB4	BS	230.97836	610.46600	.	NONE	.
413	BL4	BS	211895.00406	.89100-	.	NONE	.
414	MAPU4	BS	38855.25590	.50929	.	NONE	.
415	BI4	LL	.	.77468-	.	NONE	.15843-
416	MACB4	BS	82814.42664	.	.	NONE	.
417	CF-F4	LL	.	.	.	NONE	.07488-
418	ET4	BS	90846.18491	.	.	NONE	.

ν JMBER	.COLUMNS	AT	...ACTIVITY...	..INPUT COST..	..LOWER LIMIT.	..UPPER LIMIT.	.REDUCED COST.
419	TEST4	BS	30203.85034	.07840-	.	NONE	.
420	CE4	LL	.	.	.	NONE	.14782-
421	ITB14	BS	5400.00000	.	.	NONE	.
422	ITB24	BS	2100.00000	.	.	NONE	.
423	ITB34	BS	2100.00000	.	.	NONE	.
424	ITB44	BS	4300.00000	.	.	NONE	.
425	ITB54	BS	4100.00000	.	.	NONE	.
426	ITB64	BS	4200.00000	.	.	NONE	.
427	ITB74	BS	3250.68828	.	.	NONE	.
428	ITB84	LL	.	.	.	NONE	.06014-
429	ITB94	LL	.	.	.	NONE	.12027-
430	IT104	LL	.	.	.	NONE	.22050-
431	IT114	LL	.	.	.	NONE	.32073-
432	IT124	LL	.	.	.	NONE	.40092-
433	IT134	LL	.	.	.	NONE	.46105-
434	IT144	LL	.	.	.	NONE	.54124-
435	IT154	LL	.	.	.	NONE	.56128-
436	ITAXP4	BS	3212.15142	.82270-	.	NONE	.
437	GP-T4	BS	66700.02417	.	.	NONE	.
438	OE-T4	BS	41337.73692	.	.	NONE	.
439	NB-T4	BS	27362.28725	.	.	NONE	.
440	NI-T4	BS	24150.13583	.00010	.	NONE	.
441	RE-T4	BS	230106.44191	.	.	NONE	.
442	WO5	LL	.	20.99000	.	NONE	42.90483-
443	WR5	BS	.	2.10000-	.	NONE	.
444	CO5	BS	561.32862	68.02000	.	NONE	.
445	CR5	LL	.	11.92000	.	NONE	9.60346-
446	AO5	BS	561.32862	98.18000	.	NONE	.
447	GO5	LL	.	37.49960-	.	NONE	89.89574-
448	GR5	LL	.	49.25250-	.	NONE	28.95691-
449	HC5	LL	.	52.13580	.	NONE	18.83680-
450	CF-E5	LL	.	.	.	NONE	.44141-
451	BS5	BS	25332.76069	.10970-	.	NONE	.
452	LB5	BS	474.91046	610.46600	.	NONE	.
453	BL5	BS	445226.81064	.78353-	.	NONE	.
454	MAPU5	BS	75209.82655	.78353	.	NONE	.
455	BI5	LL	.	.78353-	.	NONE	.14811-
456	MACB5	BS	143531.72853	.	.	NONE	.
457	CE5	LL	.	.	.	NONE	1.03385-
458	CF-E5	LL	.	.	.	NONE	.10221-
459	TEST5	LL	.	.90110-	.	NONE	.45972-
460	ITB15	BS	5400.00000	.	.	NONE	.
461	ITB25	BS	2100.00000	.	.	NONE	.
462	ITB35	BS	2100.00000	.	.	NONE	.
463	ITB45	BS	4300.00000	.	.	NONE	.
464	ITB55	BS	4100.00000	.	.	NONE	.
465	ITB65	BS	4200.00000	.	.	NONE	.
466	IT675	BS	4400.00000	.	.	NONE	.
467	ITB85	BS	5300.00000	.	.	NONE	.
468	ITB95	BS	5300.00000	.	.	NONE	.
469	IT105	LL	.	.	.	NONE	.02855-

NUMBER	.COLUMNS	AT	...ACTIVITY...	..INPUT COST..	..LOWER LIMIT.	..UPPER LIMIT.	.REDUCED COST.
470	IT115	LL	.	.	.	NONE	.11943-
471	IT125	LL	.	.	.	NONE	.19213-
472	IT135	LL	.	.	.	NONE	.24666-
473	IT145	LL	.	.	.	NONE	.31936-
474	IT155	LL	.	.	.	NONE	.33754-
475	ITAXP5	BS	6274.00000	.78350-	.	NONE	.
476	GP-T5	BS	119069.02720	.	.	NONE	.
477	OE-T5	BS	77338.44965	.	.	NONE	.
478	NB-T5	BS	41730.57755	.	.	NONE	.
479	NI-T5	BS	35456.57755	.00010	.	NONE	.
480	CN-TO	LL	.	.	.	NONE	.00010-
481	RE-T5	BS	250563.01946	.00010	.	NONE	.

APPENDIX C(3)

INITIAL RESULTS FOR THE 1120 ACRE SOLE PROPRIETORSHIP

NUMBER	...ROW..	AT	...ACTIVITY...	SLACK ACTIVITY	..LOWER LIMIT.	..UPPER LIMIT.	.DUAL ACTIVITY
1	OBJ1	BS	906824.03229	906824.03229-	NONE	NONE	1.00000
2	OBJ2	BS	969724.60000	969724.60000-	NONE	NONE	.
3	OBJ3	BS	173822.00000	173822.00000-	NONE	NONE	.
4	CAINT	UL	12081.00000	.	NONE	12081.00000	2.24085-
5	OAINT	EQ	183370.00000	.	183370.00000	183370.00000	.53328-
6	HVINT	EQ	378887.00000	.	378887.00000	378887.00000	.53328-
7	MAINT	UL	125744.00000	.	NONE	125744.00000	1.69659-
8	LAINT	UL	1120.00000	.	NONE	1120.00000	1141.25682-
9	IDINT	LL	236411.00000	.	236411.00000	NONE	2.66053
10	LDINT	LL	184994.00000	.	184994.00000	NONE	2.49120
11	REINT	LL	.	.	.	NONE	.53328
12	AVEQT	LL	.	.	.	NONE	.53318
13	CNCO1	LL	40000.00000	.	40000.00000	NONE	1.70767
14	CNCO2	LL	40000.00000	.	40000.00000	NONE	1.49031
15	CNCO3	LL	40000.00000	.	40000.00000	NONE	1.30742
16	CNCO4	LL	40000.00000	.	40000.00000	NONE	1.15383
17	CNCO5	LL	40000.00000	.	40000.00000	NONE	1.03221
18	LAND1	UL	.	.	NONE	.	42.03125-
19	LREN1	BS	2389.17433-	2389.17433	NONE	.	.
20	AUM1	LL	.	.	.	NONE	28.00780
21	CAP1	UL	.	.	NONE	.	.51615-
22	EQT1	LL	.	.	.	NONE	.53318
23	CF1	LL	.	.	.	NONE	1.70757
24	LNTF1	UL	.	.	NONE	.	1.70757-
25	MARE1	UL	.	.	NONE	.	.41146-
26	MACC1	LL	.	.	.	NONE	1.29611
27	TAXI1	UL	.	.	NONE	.	.87734-
28	TAXP1	UL	.	.	NONE	.	2.66007-
29	ILM11	UL	5400.00000	.	NONE	5400.00000	.87734-
30	ILM21	UL	2100.00000	.	NONE	2100.00000	.58473-
31	ILM31	UL	2100.00000	.	NONE	2100.00000	.55813-
32	ILM41	UL	4300.00000	.	NONE	4300.00000	.50493-
33	ILM51	UL	4100.00000	.	NONE	4100.00000	.45173-
34	ILM61	UL	4200.00000	.	NONE	4200.00000	.39852-
35	ILM71	UL	4400.00000	.	NONE	4400.00000	.29212-
36	ILM81	UL	5300.00000	.	NONE	5300.00000	.21232-
37	ILM91	UL	5300.00000	.	NONE	5300.00000	.13252-
38	IL101	BS	.	10600.00000	NONE	10600.00000	.
39	IL111	BS	.	14200.00000	NONE	14200.00000	.
40	IL121	BS	.	25600.00000	NONE	25600.00000	.
41	IL131	BS	.	23800.00000	NONE	23800.00000	.
42	IL141	BS	.	53000.00000	NONE	53000.00000	.
43	GPSR1	BS	126697.91495	126697.91495-	NONE	NONE	.
44	GPTR1	LL	.	.	.	NONE	.00020
45	GESR1	BS	99695.53573	99695.53573-	NONE	NONE	.
46	GETR1	UL	.	.	NONE	.	.00020-
47	NITS1	BS	27002.37922	27002.37922-	NONE	NONE	.
48	NITT1	LL	.	.	.	NONE	.00020
49	TA-P1	BS	6274.00000	6274.00000-	NONE	NONE	.

NUMBER	...ROW..	AT	...ACTIVITY...	SLACK ACTIVITY	..LOWER LIMIT.	..UPPER LIMIT.	.DUAL ACTIVITY
50	NATS1	BS	20728.37922	20728.37922-	NONE	NONE	.
51	NATT1	LL	.	.	.	NONE	.00020
52	CABS1	BS	.	.	NONE	NONE	.
53	MABS1	BS	152727.96932	152727.96932-	NONE	NONE	.
54	OABS1	BS	183370.00000	183370.00000-	NONE	NONE	.
55	ALGS1	BS	28694.40000	28694.40000-	NONE	NONE	.
56	LABS1	BS	733390.25335	733390.25335-	NONE	NONE	.
57	HVR1	BS	378887.00000	378887.00000-	NONE	NONE	.
58	TABS1	BS	1510580.02267	1510580.02267-	NONE	NONE	.
59	SOBS1	BS	67984.13852	67984.13852-	NONE	NONE	.
60	IOBS1	BS	200644.37981	200644.37981-	NONE	NONE	.
61	LOES1	BS	221708.67382	221708.67382-	NONE	NONE	.
62	TOES1	BS	490337.19215	490337.19215-	NONE	NONE	.
63	R/EB1	BS	976630.97923	976630.97923-	NONE	NONE	.
64	R/ET1	LL	.	.	.	NONE	.00010
65	R/EL1	BS	28694.40000	28694.40000-	NONE	NONE	.
66	R/ES1	BS	1005325.37923	1005325.37923-	NONE	NONE	.
67	LAND2	UL	.	.	NONE	.	25.98605-
68	LREN2	BS	2513.95913-	2513.95913	NONE	.	.
69	AUM2	LL	.	.	.	NONE	26.17285
70	CAP2	UL	.	.	NONE	.	.51170-
71	EQT2	LL	.	.	.	NONE	.53318
72	CF2	LL	.	.	.	NONE	1.49021
73	LNTF2	UL	.	.	NONE	.	1.46167-
74	MARE2	UL	.	.	NONE	.	.47091-
75	MACC2	LL	.	.	.	NONE	.91408
76	TAXI2	UL	.	.	NONE	.	.64601-
77	TAXP2	UL	.	.	NONE	.	2.39741-
78	ILM12	UL	5400.00000	.	NONE	5400.00000	.64601-
79	ILM22	UL	2100.00000	.	NONE	2100.00000	.38230-
80	ILM32	UL	2100.00000	.	NONE	2100.00000	.35832-
81	ILM42	UL	4300.00000	.	NONE	4300.00000	.31037-
82	ILM52	UL	4100.00000	.	NONE	4100.00000	.26243-
83	ILM62	UL	4200.00000	.	NONE	4200.00000	.21448-
84	ILM72	UL	4400.00000	.	NONE	4400.00000	.11858-
85	ILM82	UL	5300.00000	.	NONE	5300.00000	.04666-
86	ILM92	BS	.	5300.00000	NONE	5300.00000	.
87	IL102	BS	.	10600.00000	NONE	10600.00000	.
88	IL112	BS	.	14200.00000	NONE	14200.00000	.
89	IL122	BS	.	25600.00000	NONE	25600.00000	.
90	IL132	BS	.	23800.00000	NONE	23800.00000	.
91	IL142	BS	.	53000.00000	NONE	53000.00000	.
92	GPSR2	BS	133315.25264	133315.25264-	NONE	NONE	.
93	GPTR2	LL	.	.	.	NONE	.00020
94	OESR2	BS	105351.82012	105351.82012-	NONE	NONE	.
95	OETR2	UL	.	.	NONE	.	.00020-
96	NITS2	BS	27963.43252	27963.43252-	NONE	NONE	.
97	NITT2	LL	.	.	.	NONE	.00020
98	TA-P2	BS	4790.00000	4790.00000-	NONE	NONE	.
99	NATS2	BS	23173.43252	23173.43252-	NONE	NONE	.
100	NATT2	LL	.	.	.	NONE	.00020

NUMBER	...ROW..	AT	...ACTIVITY...	SLACK ACTIVITY	..LOWER LIMIT.	..UPPER LIMIT.	.DUAL ACTIVITY
101	CABS2	BS	.	.	NONE	NONE	.
102	MABS2	BS	160704.83736	160704.83736-	NONE	NONE	.
103	OABS2	BS	183370.00000	183370.00000-	NONE	NONE	.
104	ALGS2	BS	60518.20213	60518.20213-	NONE	NONE	.
105	LABS2	BS	776605.72362	776605.72362-	NONE	NONE	.
106	HVR2	BS	378887.00000	378887.00000-	NONE	NONE	.
107	TABS2	BS	1593596.16312	1593596.16312-	NONE	NONE	.
108	SDBS2	BS	94227.92172	94227.92172-	NONE	NONE	.
109	IDBS2	BS	159872.93875	159872.93875-	NONE	NONE	.
110	LDES2	BS	298932.17452	298932.17452-	NONE	NONE	.
111	TDES2	BS	553033.03499	553033.03499-	NONE	NONE	.
112	R/EB2	BS	959804.41174	959804.41174-	NONE	NONE	.
113	R/ET2	LL	.	.	.	NONE	.00010
114	R/EL2	BS	60518.20213	60518.20213-	NONE	NONE	.
115	R/ES2	BS	1020322.61388	1020322.61388-	NONE	NONE	.
116	LAND3	UL	.	.	NONE	.	23.45944-
117	LREN3	BS	2870.58256-	2870.58256	NONE	.	.
118	AUM3	LL	.	.	.	NONE	20.71357
119	CAP3	UL	.	.	NONE	.	.47755-
120	EQT3	LL	.	.	.	NONE	.53318
121	CF3	LL	.	.	.	NONE	1.30732
122	LNTF3	UL	.	.	NONE	.	1.24718-
123	MARE3	UL	.	.	NONE	.	.39424-
124	MACC3	LL	.	.	.	NONE	.57674
125	TAXI3	UL	.	.	NONE	.	.66423-
126	TAXP3	UL	.	.	NONE	.	2.17132-
127	ILM13	UL	5400.00000	.	NONE	5400.00000	.66423-
128	ILM23	UL	2100.00000	.	NONE	2100.00000	.42538-
129	ILM33	UL	2100.00000	.	NONE	2100.00000	.40367-
130	ILM43	UL	4300.00000	.	NONE	4300.00000	.36024-
131	ILM53	UL	4100.00000	.	NONE	4100.00000	.31681-
132	ILM63	UL	4200.00000	.	NONE	4200.00000	.27339-
133	ILM73	UL	4400.00000	.	NONE	4400.00000	.18654-
134	ILM83	UL	5300.00000	.	NONE	5300.00000	.12140-
135	ILM93	UL	5300.00000	.	NONE	5300.00000	.05626-
136	IL103	BS	.	10600.00000	NONE	10600.00000	.
137	IL113	BS	.	14200.00000	NONE	14200.00000	.
138	IL123	BS	.	25600.00000	NONE	25600.00000	.
139	IL133	BS	.	23800.00000	NONE	23800.00000	.
140	IL143	BS	.	53000.00000	NONE	53000.00000	.
141	GPSR3	BS	152226.99328	152226.99328-	NONE	NONE	.
142	GPTR3	LL	.	.	.	NONE	.00020
143	OESR3	BS	118693.42115	118693.42115-	NONE	NONE	.
144	OETR3	UL	.	.	NONE	.	.00020-
145	NITS3	BS	33533.57213	33533.57213-	NONE	NONE	.
146	NITT3	LL	.	.	.	NONE	.00020
147	TA-P3	BS	6274.00000	6274.00000-	NONE	NONE	.
148	NATS3	BS	27259.57213	27259.57213-	NONE	NONE	.
149	NATT3	LL	.	.	.	NONE	.00020
150	CABS3	BS	.	.	NONE	NONE	.
151	MABS3	BS	183501.99029	183501.99029-	NONE	NONE	.

NUMBER	...ROW..	AT	...ACTIVITY...	SLACK ACTIVITY	..LOWER LIMIT.	..UPPER LIMIT.	.DUAL ACTIVITY
152	OABS3	BS	183370.00000	183370.00000-	NONE	NONE	.
153	ALGS3	BS	95349.10587	95349.10587-	NONE	NONE	.
154	LABS3	BS	938562.96850	938562.96850-	NONE	NONE	.
155	HVR3	BS	378887.00000	378887.00000-	NONE	NONE	.
156	TABS3	BS	1779671.06467	1779671.06467-	NONE	NONE	.
157	SDBS3	BS	118670.77417	118670.77417-	NONE	NONE	.
158	IDBS3	BS	113382.71560	113382.71560-	NONE	NONE	.
159	LDES3	BS	477296.22072	477296.22072-	NONE	NONE	.
160	TDES3	BS	709349.71049	709349.71049-	NONE	NONE	.
161	R/EB3	BS	947063.98388	947063.98388-	NONE	NONE	.
162	R/ET3	LL	.	.	.	NONE	.00010
163	R/EL3	BS	95349.10587	95349.10587-	NONE	NONE	.
164	R/ES3	BS	1042413.08975	1042413.08975-	NONE	NONE	.
165	LAND4	UL	.	.	NONE	.	21.08774-
166	LREN4	BS	3683.38110-	3683.38110	NONE	.	.
167	AUM4	LL	.	.	.	NONE	37.85889
168	CAP4	UL	.	.	NONE	.	.44833-
169	EQT4	LL	.	.	.	NONE	.53318
170	CF4	LL	.	.	.	NONE	1.15373
171	LNTF4	UL	.	.	NONE	.	1.06752-
172	MARE4	UL	.	.	NONE	.	.32953-
173	MACC4	LL	.	.	.	NONE	.22870
174	TAXI4	UL	.	.	NONE	.	.67865-
175	TAXP4	UL	.	.	NONE	.	1.97663-
176	ILM14	UL	5400.00000	.	NONE	5400.00000	.67865-
177	ILM24	UL	2100.00000	.	NONE	2100.00000	.46122-
178	ILM34	UL	2100.00000	.	NONE	2100.00000	.44145-
179	ILM44	UL	4300.00000	.	NONE	4300.00000	.40192-
180	ILM54	UL	4100.00000	.	NONE	4100.00000	.36239-
181	ILM64	UL	4200.00000	.	NONE	4200.00000	.32286-
182	ILM74	UL	4400.00000	.	NONE	4400.00000	.24379-
183	ILM84	UL	5300.00000	.	NONE	5300.00000	.18449-
184	ILM94	UL	5300.00000	.	NONE	5300.00000	.12519-
185	IL104	UL	10600.00000	.	NONE	10600.00000	.02636-
186	IL114	BS	.	14200.00000	NONE	14200.00000	.
187	IL124	BS	.	25600.00000	NONE	25600.00000	.
188	IL134	BS	.	23800.00000	NONE	23800.00000	.
189	IL144	BS	.	53000.00000	NONE	53000.00000	.
190	GPSR4	BS	195329.69998	195329.69998-	NONE	NONE	.
191	GPTR4	LL	.	.	.	NONE	.00020
192	OESR4	BS	149840.01293	149840.01293-	NONE	NONE	.
193	OETR4	UL	.	.	NONE	.	.00020-
194	NITS4	BS	45489.68705	45489.68705-	NONE	NONE	.
195	NITT4	LL	.	.	.	NONE	.00020
196	TA-P4	BS	9772.00000	9772.00000-	NONE	NONE	.
197	NATS4	BS	35717.68705	35717.68705-	NONE	NONE	.
198	NATT4	LL	.	.	.	NONE	.00020
199	CABS4	BS	.	.	NONE	NONE	.
200	MABS4	BS	235460.13711	235460.13711-	NONE	NONE	.
201	OABS4	BS	183370.00000	183370.00000-	NONE	NONE	.
202	ALGS4	BS	136699.84768	136699.84768-	NONE	NONE	.

NUMBER	...ROW..	AT	...ACTIVITY...	SLACK ACTIVITY	..LOWER LIMIT.	..UPPER LIMIT.	.DUAL ACTIVITY
203	LABS4	BS	1243021.04649	1243021.04649-	NONE	NONE	.
204	HVR4	BS	378887.00000	378887.00000-	NONE	NONE	.
205	TABS4	BS	2177438.03128	2177438.03128-	NONE	NONE	.
206	SDBS4	BS	134072.86050	134072.86050-	NONE	NONE	.
207	IDBS4	BS	60405.37461	60405.37461-	NONE	NONE	.
208	LDES4	BS	864162.70975	864162.70975-	NONE	NONE	.
209	TDES4	BS	1058640.94486	1058640.94486-	NONE	NONE	.
210	R/EB4	BS	942781.67093	942781.67093-	NONE	NONE	.
211	R/ET4	LL	.	.	.	NONE	.00010
212	R/EL4	BS	136699.84768	136699.84768-	NONE	NONE	.
213	R/ES4	BS	1079481.51861	1079481.51861-	NONE	NONE	.
214	LAND5	UL	.	.	NONE	.	76.72744-
215	LREN5	BS	4537.56961-	4537.56961	NONE	.	.
216	AUM5	LL	.	.	.	NONE	19.04884
217	CAP5	UL	.	.	NONE	.	.41662-
218	EQT5	LL	.	.	.	NONE	.53318
219	CF5	LL	.	.	.	NONE	1.03211
220	LNTF5	UL	.	.	NONE	.	.91682-
221	MARE5	UL	.	.	NONE	.	.00309-
222	MACC5	LL	.	.	.	NONE	.13020
223	TAXI5	UL	.	.	NONE	.	.74422-
224	TAXP5	UL	.	.	NONE	.	1.81581-
225	ILM15	UL	5400.00000	.	NONE	5400.00000	.74422-
226	ILM25	UL	2100.00000	.	NONE	2100.00000	.54448-
227	ILM35	UL	2100.00000	.	NONE	2100.00000	.52632-
228	ILM45	UL	4300.00000	.	NONE	4300.00000	.49001-
229	ILM55	UL	4100.00000	.	NONE	4100.00000	.45369-
230	ILM65	UL	4200.00000	.	NONE	4200.00000	.41737-
231	ILM75	UL	4400.00000	.	NONE	4400.00000	.34474-
232	ILM85	UL	5300.00000	.	NONE	5300.00000	.29027-
233	ILM95	UL	5300.00000	.	NONE	5300.00000	.23579-
234	IL105	UL	10600.00000	.	NONE	10600.00000	.14500-
235	IL115	UL	14200.00000	.	NONE	14200.00000	.05421-
236	IL125	BS	.	25600.00000	NONE	25600.00000	.
237	IL135	BS	.	23800.00000	NONE	23800.00000	.
238	IL145	BS	.	53000.00000	NONE	53000.00000	.
239	GPSR5	BS	428081.67466	428081.67466-	NONE	NONE	.
240	GPTR5	LL	.	.	.	NONE	.00020
241	OESR5	BS	345970.74559	345970.74559-	NONE	NONE	.
242	OETR5	UL	.	.	NONE	.	.00020-
243	NITS5	BS	82110.92907	82110.92907-	NONE	NONE	.
244	NITT5	LL	.	.	.	NONE	.00020
245	TA-P5	BS	15168.00000	15168.00000-	NONE	NONE	.
246	NATS5	BS	66942.92907	66942.92907-	NONE	NONE	.
247	NATT5	LL	.	.	.	NONE	.00020
248	CABS5	BS	.	.	NONE	NONE	.
249	MABS5	BS	1089231.18272	1089231.18272-	NONE	NONE	.
250	OABS5	BS	183370.00000	183370.00000-	NONE	NONE	.
251	ALGS5	BS	191582.22614	191582.22614-	NONE	NONE	.
252	LABS5	BS	2645912.78447	2645912.78447-	NONE	NONE	.
253	HVR5	BS	378887.00000	378887.00000-	NONE	NONE	.

NUMBER	...ROW..	AT	...ACTIVITY...	SLACK ACTIVITY	..LOWER LIMIT.	..UPPER LIMIT.	.DUAL ACTIVITY
254	TABS5	BS	4488983.19333	4488983.19333-	NONE	NONE	.
255	SDBS5	BS	.	.	NONE	NONE	.
256	IDBS5	BS	.	.	NONE	NONE	.
257	LDES5	BS	3159062.80043	3159062.80043-	NONE	NONE	.
258	TDES5	BS	3159062.80042	3159062.80042-	NONE	NONE	.
259	R/EB5	BS	969724.60000	969724.60000-	NONE	NONE	.
260	R/ET5	LL	.	.		NONE	.00010
261	R/EL5	BS	191582.22614	191582.22614-	NONE	NONE	.
262	R/ES5	BS	1161306.82614	1161306.82614-	NONE	NONE	.
263	USER1	UL	560.00000	.	NONE	560.00000	165.59497-
264	USER2	UL	560.00000	.	NONE	560.00000	176.03821-
265	USER3	UL	560.00000	.	NONE	560.00000	150.41678-
266	USER4	UL	560.00000	.	NONE	560.00000	128.65630-
267	USER5	UL	560.00000	.	NONE	560.00000	54.26304-

NUMBER	.COLUMNS	AT	...ACTIVITY...	..INPUT COST..	..LOWER LIMIT.	..UPPER LIMIT.	.REDUCED COST.
268	CEO	BS	12081.00000	.	.	NONE	.
269	OEAO	BS	183370.00000	.	.	NONE	.
270	LOWNO	BS	1120.00000	610.46600	.	NONE	.
271	HVO	BS	378887.00000	.	.	NONE	.
272	BIO	BS	236411.00000	.40616-	.	NONE	.
273	BLO	BS	184994.00000	1.37140-	.	NONE	.
274	MACBO	BS	125744.00000	.24543-	.	NONE	.
275	RE-TO	BS	995902.60000	.	.	NONE	.
276	ETO	BS	831448.60000	.	.	NONE	.
277	CN-T1	BS	40000.00000	.	.	NONE	.
278	CN-T2	BS	40000.00000	.	.	NONE	.
279	CN-T3	BS	40000.00000	.	.	NONE	.
280	CN-T4	BS	40000.00000	.	.	NONE	.
281	CN-T5	BS	40000.00000	.	.	NONE	.
282	WO1	LL	.	25.51000	.	NONE	23.77869-
283	WR1	LL	.	2.55000-	.	NONE	34.28034-
284	CO1	BS	597.29358	82.67000	.	NONE	.
285	CR1	LL	.	14.49000	.	NONE	85.60786-
286	AO1	BS	597.29358	119.34000	.	NONE	.
287	GO1	LL	.	45.58090-	.	NONE	96.12382-
288	GR1	LL	.	59.87000-	.	NONE	80.83819-
289	HC1	BS	.	63.37000	.	NONE	.
290	CF-E1	LL	.	.	.	NONE	1.17440-
291	BS1	BS	26955.85943	.13330-	.	NONE	.
292	LE1	BS	74.58717	610.46600	.	NONE	.
293	BL1	BS	37232.65702	1.24340-	.	NONE	.
294	MAPU1	BS	48989.16932	.	.	NONE	.
295	BI1	LL	.	.56034-	.	NONE	.16844-
296	MACB1	BS	152727.96932	.	.	NONE	.
297	CF-F1	BS	61431.56565	.	.	NONE	.
298	ET1	BS	751406.69870	.	.	NONE	.
299	TEST1	BS	67984.13852	.09070-	.	NONE	.
300	CE1	LL	.	.	.	NONE	.21736-
301	ITB11	BS	5400.00000	.	.	NONE	.
302	ITB21	BS	2100.00000	.	.	NONE	.
303	ITB31	BS	2100.00000	.	.	NONE	.
304	ITB41	BS	4300.00000	.	.	NONE	.
305	ITB51	BS	4100.00000	.	.	NONE	.
306	ITB61	BS	4200.00000	.	.	NONE	.
307	ITB71	BS	4400.00000	.	.	NONE	.
308	ITB81	BS	5300.00000	.	.	NONE	.
309	ITB91	BS	5300.00000	.	.	NONE	.
310	IT101	LL	.	.	.	NONE	.00049-
311	IT111	LL	.	.	.	NONE	.13349-
312	IT121	LL	.	.	.	NONE	.23989-
313	IT131	LL	.	.	.	NONE	.31970-
314	IT141	LL	.	.	.	NONE	.42610-
315	IT151	LL	.	.	.	NONE	.45270-
316	ITAXP	BS	6274.00000	.95230-	.	NONE	.

NUMBER	.COLUMNS	AT	...ACTIVITY...	..INPUT COST..	..LOWER LIMIT.	..UPPER LIMIT.	.REDUCED COST.
317	GP-T1	BS	126697.91495	.	.	NONE	.
318	OE-T1	BS	99695.53573	.	.	NONE	.
319	NB-T1	BS	27002.37922	.	.	NONE	.
320	NI-T1	BS	20728.37922	.00010	.	NONE	.
321	RE-T1	BS	976630.97923	.	.	NONE	.
322	WO2	LL	.	24.30000	.	NONE	15.01668-
323	WR2	LL	.	2.43000-	.	NONE	40.64508-
324	CO2	BS	628.48978	78.74000	.	NONE	.
325	CR2	LL	.	13.80000	.	NONE	99.41294-
326	AO2	BS	628.48978	113.66000	.	NONE	.
327	GO2	LL	.	43.41040-	.	NONE	85.62455-
328	GR2	LL	.	57.01580-	.	NONE	63.55372-
329	HC2	BS	.	60.35240	.	NONE	.
330	CF-E2	LL	.	.	.	NONE	.95704-
331	BS2	BS	28363.74388	.12690-	.	NONE	.
332	LB2	BS	62.39240	610.46600	.	NONE	.
333	BL2	BS	77919.73294	1.12080-	.	NONE	.
334	MAPU2	BS	34704.26267	.07669	.	NONE	.
335	BI2	LL	.	.66869-	.	NONE	.16390-
336	MACB2	BS	160704.83736	.	.	NONE	.
337	CF-F2	LL	.	.	.	NONE	.24590-
338	ET2	BS	703735.37957	.	.	NONE	.
339	TEST2	BS	94227.92172	.08640-	.	NONE	.
340	CE2	LL	.	.	.	NONE	.18289-
341	ITB12	BS	5400.00000	.	.	NONE	.
342	ITB22	BS	2100.00000	.	.	NONE	.
343	ITB32	BS	2100.00000	.	.	NONE	.
344	ITB42	BS	4300.00000	.	.	NONE	.
345	ITB52	BS	4100.00000	.	.	NONE	.
346	ITB62	BS	4200.00000	.	.	NONE	.
347	ITB72	BS	4400.00000	.	.	NONE	.
348	ITB82	BS	5300.00000	.	.	NONE	.
349	ITB92	LL	.	.	.	NONE	.02526-
350	IT102	LL	.	.	.	NONE	.14513-
351	IT112	LL	.	.	.	NONE	.26500-
352	IT122	LL	.	.	.	NONE	.36090-
353	IT132	LL	.	.	.	NONE	.43282-
354	IT142	LL	.	.	.	NONE	.52872-
355	IT152	LL	.	.	.	NONE	.55269-
356	ITAXP2	BS	4790.00000	.90700-	.	NONE	.
357	GP-T2	BS	133315.25264	.	.	NONE	.
358	OE-T2	BS	105351.82012	.	.	NONE	.
359	NB-T2	BS	27963.43252	.	.	NONE	.
360	NI-T2	BS	23173.43252	.00010	.	NONE	.
361	RE-T2	BS	959804.41174	.	.	NONE	.
362	WO3	LL	.	23.14000	.	NONE	15.22550-
363	WR3	LL	.	2.32000-	.	NONE	36.18388-
364	CO3	BS	717.64564	74.99000	.	NONE	.
365	CR3	LL	.	13.14000	.	NONE	84.45027-
366	AO3	BS	717.64564	108.25000	.	NONE	.
367	GO3	LL	.	41.34320-	.	NONE	78.83687-

NUMBER	.COLUMNS	AT	...ACTIVITY...	..INPUT COST..	..LOWER LIMIT.	..UPPER LIMIT.	.REDUCED COST.
368	GR3	LL	.	45.56010-	.	NONE	69.24371-
369	HC3	BS	.	57.78500	.	NONE	.
370	CF-E3	LL	.	.	.	NONE	.77414-
371	BS3	BS	32387.34776	.12090-	.	NONE	.
372	LB3	BS	178.31172	610.46600	.	NONE	.
373	BL3	BS	179367.34435	1.00060-	.	NONE	.
374	MAPU3	BS	50920.49947	.27620	.	NONE	.
375	BI3	LL	.	.73813-	.	NONE	.15910-
376	MACB3	BS	183501.99029	.	.	NONE	.
377	CF-F3	LL	.	.	.	NONE	.06013-
378	ET3	BS	632200.53793	.	.	NONE	.
379	TEST3	BS	118670.77417	.08230-	.	NONE	.
380	CE3	LL	.	.	.	NONE	.15359-
381	ITB13	BS	5400.00000	.	.	NONE	.
382	ITB23	BS	2100.00000	.	.	NONE	.
383	ITB33	BS	2100.00000	.	.	NONE	.
384	ITB43	BS	4300.00000	.	.	NONE	.
385	ITB53	BS	4100.00000	.	.	NONE	.
386	ITB63	BS	4200.00000	.	.	NONE	.
387	ITB73	BS	4400.00000	.	.	NONE	.
388	ITB83	BS	5300.00000	.	.	NONE	.
389	ITB93	BS	5300.00000	.	.	NONE	.
390	IT103	LL	.	.	.	NONE	.05231-
391	IT113	LL	.	.	.	NONE	.16088-
392	IT123	LL	.	.	.	NONE	.24773-
393	IT133	LL	.	.	.	NONE	.31287-
394	IT143	LL	.	.	.	NONE	.39972-
395	IT153	LL	.	.	.	NONE	.42143-
396	ITAXP3	BS	6274.00000	.86380-	.	NONE	.
397	GP-T3	BS	152226.99328	.	.	NONE	.
398	OE-T3	BS	118693.42115	.	.	NONE	.
399	NB-T3	BS	33533.57213	.	.	NONE	.
400	NI-T3	BS	27259.57213	.00010	.	NONE	.
401	RE-T3	BS	947063.98388	.	.	NONE	.
402	WO4	BS	.	22.04000	.	NONE	.
403	WR4	LL	.	2.20000-	.	NONE	17.15868-
404	CO4	BS	920.84528	71.42000	.	NONE	.
405	CR4	LL	.	12.51000	.	NONE	71.85209-
406	AO4	BS	920.84528	103.09000	.	NONE	.
407	GO4	LL	.	39.37450-	.	NONE	24.86335-
408	GR4	LL	.	51.71510-	.	NONE	23.24536-
409	HC4	LL	.	54.74260	.	NONE	40.74426-
410	CF-E4	LL	.	.	.	NONE	.62055-
411	BS4	BS	41557.74731	.11520-	.	NONE	.
412	LB4	BS	406.39927	610.46600	.	NONE	.
413	BL4	BS	388529.07311	.89100-	.	NONE	.
414	MAPU4	BS	84070.99512	.50929	.	NONE	.
415	BI4	LL	.	.77468-	.	NONE	.14604-
416	MACB4	BS	235460.13711	.	.	NONE	.
417	CF-F4	LL	.	.	.	NONE	.08621-
418	ET4	BS	514797.76997	.	.	NONE	.

NUMBER	.COLUMNS	AT	...ACTIVITY...	..INPUT COST..	..LOWER LIMIT.	..UPPER LIMIT.	.REDUCED COST.
419	TEST4	BS	134072.86050	.07840-	.	NONE	.
420	CE4	LL	.	.	.	NONE	.12161-
421	ITB14	BS	5400.00000	.	.	NONE	.
422	ITB24	BS	2100.00000	.	.	NONE	.
423	ITB34	BS	2100.00000	.	.	NONE	.
424	ITB44	BS	4300.00000	.	.	NONE	.
425	ITB54	BS	4100.00000	.	.	NONE	.
426	ITB64	BS	4200.00000	.	.	NONE	.
427	ITB74	BS	4400.00000	.	.	NONE	.
428	ITB84	BS	5300.00000	.	.	NONE	.
429	ITB94	BS	5300.00000	.	.	NONE	.
430	IT104	BS	10600.00000	.	.	NONE	.
431	IT114	LL	.	.	.	NONE	.07247-
432	IT124	LL	.	.	.	NONE	.15153-
433	IT134	LL	.	.	.	NONE	.21083-
434	IT144	LL	.	.	.	NONE	.28990-
435	IT154	LL	.	.	.	NONE	.30966-
436	ITAAP4	BS	9772.00000	.82270-	.	NONE	.
437	GP-T4	BS	195329.69998	.	.	NONE	.
438	OE-T4	BS	149840.01293	.	.	NONE	.
439	NB-T4	BS	45489.68705	.	.	NONE	.
440	NI-T4	BS	35717.68705	.00010	.	NONE	.
441	RE-T4	BS	942781.67093	.	.	NONE	.
442	WO5	LL	.	20.99000	.	NONE	45.14735-
443	WR5	BS	.	2.10000-	.	NONE	.
444	CO5	BS	1821.13903	68.02000	.	NONE	.
445	CR5	BS	2746.98649	11.92000	.	NONE	.
446	AO5	BS	1821.13903	98.18000	.	NONE	.
447	GO5	LL	.	37.43960-	.	NONE	93.53665-
448	GR5	LL	.	49.25250-	.	NONE	32.88350-
449	HC5	LL	.	52.13580	.	NONE	8.15394-
450	CF-E5	LL	.	.	.	NONE	.49894-
451	BS5	BS	185048.91345	.10970-	.	NONE	.
452	LB5	BS	1800.58750	610.46600	.	NONE	.
453	BL5	BS	2297868.30758	.78353-	.	NONE	.
454	MAPU5	BS	894976.56960	.78353	.	NONE	.
455	BI5	LL	.	.78353-	.	NONE	.13329-
456	MACB5	BS	1089231.18272	.	.	NONE	.
457	CE5	LL	.	.	.	NONE	1.03211-
458	CF-E5	LL	.	.	.	NONE	.11529-
459	TES15	LL	.	.90110-	.	NONE	.40219-
460	ITB15	BS	5400.00000	.	.	NONE	.
461	ITB25	BS	2100.00000	.	.	NONE	.
462	ITB35	BS	2100.00000	.	.	NONE	.
463	ITB45	BS	4300.00000	.	.	NONE	.
464	ITB55	BS	4100.00000	.	.	NONE	.
465	ITB65	BS	4200.00000	.	.	NONE	.
466	ITB75	BS	4400.00000	.	.	NONE	.
467	ITB85	BS	5300.00000	.	.	NONE	.
468	ITB95	BS	5300.00000	.	.	NONE	.
469	IT105	BS	10600.00000	.	.	NONE	.

NUMBER	COLUMNS	AT	...ACTIVITY...	..INPUT COST..	..LOWER LIMIT.	..UPPER LIMIT.	.REDUCED COST.
470	IT115	BS	14200.00000	.	.	NONE	.
471	IT125	LL	.	.	.	NONE	.01842-
472	IT135	LL	.	.	.	NONE	.07290-
473	IT145	LL	.	.	.	NONE	.14553-
474	IT155	LL	.	.	.	NONE	.16369-
475	ITAXP5	BS	15168.00000	.78350-	.	NONE	.
476	GP-T5	BS	428081.67466	.	.	NONE	.
477	OE-T5	BS	345970.74559	.	.	NONE	.
478	NB-T5	BS	82110.92907	.	.	NONE	.
479	NI-T5	BS	66942.92907	.00010	.	NONE	.
480	CN-TO	LL	.	.	.	NONE	.00010-
481	RE-T5	BS	969724.60000	.00010	.	NONE	.

APPENDIX C(4)

INITIAL RESULTS FOR THE 320 ACRE CORPORATION

NUMBER	...ROW..	AT	...ACTIVITY...	SLACK ACTIVITY	..LOWER LIMIT.	..UPPER LIMIT.	.DUAL ACTIVITY
1	OBJ1	BS	279023.16818	279023.16818-	NONE	NONE	1.00000
2	OBJ2	BS	245782.73369	245782.73369-	NONE	NONE	.
3	OBJ3	BS	9342.13369	9342.13369-	NONE	NONE	.
4	CAINT	UL	1451.00000	.	NONE	1451.00000	2.83985-
5	OAINT	EQ	38575.00000	.	38575.00000	38575.00000	.66111-
6	HVINT	EQ	53410.00000	.	53410.00000	53410.00000	.66111-
7	MAINT	UL	37820.00000	.	NONE	37820.00000	2.21314-
8	LAINT	UL	320.00000	.	NONE	320.00000	1305.97571-
9	IDINT	LL	38135.00000	.	38135.00000	NONE	3.42912
10	LDINT	LL	61602.00000	.	61602.00000	NONE	3.30801
11	REINT	LL	.	.	.	NONE	.66111
12	AVEQT	LL	.	.	.	NONE	.66101
13	CNCO1	LL	15000.00000	.	15000.00000	NONE	3.02199
14	CNCO2	LL	15000.00000	.	15000.00000	NONE	2.63263
15	CNCO3	LL	15000.00000	.	15000.00000	NONE	1.99724
16	CNCO4	LL	15000.00000	.	15000.00000	NONE	1.46457
17	CNCO5	LL	15000.00000	.	15000.00000	NONE	.96961
18	LAND1	UL	.	.	NONE	.	72.72944-
19	LREN1	BS	769.55522-	769.55522	NONE	.	.
20	AUM1	LL	.	.	.	NONE	61.32718
21	CAP1	UL	.	.	NONE	.	.79786-
22	EQT1	LL	.	.	.	NONE	.66101
23	CF1	LL	.	.	.	NONE	2.17874
24	LNTF1	UL	.	.	NONE	.	2.17874-
25	MARE1	UL	.	.	NONE	.	.82468-
26	MACC1	LL	.	.	.	NONE	1.35406
27	CTAXI1	UL	.	.	NONE	.	.58913-
28	CTAP1	UL	.	.	NONE	.	3.92754-
29	CLM11	BS	520.67396	24479.32604	NONE	25000.00000	.
30	CLM21	BS	.	25000.00000	NONE	25000.00000	.
31	CLM31	BS	.	25000.00000	NONE	25000.00000	.
32	CLM41	BS	.	25000.00000	NONE	25000.00000	.
33	IGIS1	UL	.	.	NONE	.	3.02199-
34	TAXI1	UL	.	.	NONE	.	.63589-
35	TAXP1	UL	.	.	NONE	.	3.97429-
36	ILM11	UL	5400.00000	.	NONE	5400.00000	.63589-
37	ILM21	UL	2100.00000	.	NONE	2100.00000	.19371-
38	ILM31	UL	2100.00000	.	NONE	2100.00000	.15897-
39	ILM41	UL	4300.00000	.	NONE	4300.00000	.07949-
40	ILM51	BS	2601.19048	1498.80952	NONE	4100.00000	.
41	ILM61	BS	.	4200.00000	NONE	4200.00000	.
42	ILM71	BS	.	4400.00000	NONE	4400.00000	.
43	ILM81	BS	.	5300.00000	NONE	5300.00000	.
44	ILM91	BS	.	5300.00000	NONE	5300.00000	.
45	IL101	BS	.	10600.00000	NONE	10600.00000	.
46	IL111	BS	.	14200.00000	NONE	14200.00000	.
47	IL121	BS	.	25600.00000	NONE	25600.00000	.
48	IL131	BS	.	23800.00000	NONE	23800.00000	.
49	IL141	BS	.	53000.00000	NONE	53000.00000	.

NUMBER	...ROW..	AT	...ACTIVITY...	SLACK ACTIVITY	..LOWER LIMIT.	..UPPER LIMIT.	.DUAL ACTIVITY
50	GPSR1	BS	24308.32299	24308.32299-	NONE	NONE	.
51	GPTR1	LL	.	.	.	NONE	.79649
52	OESR1	BS	24230.22190	24230.22190-	NONE	NONE	.
53	OETR1	UL	.	.	NONE	.	.79649-
54	NITS1	BS	78.10109	78.10109-	NONE	NONE	.
55	NITT1	LL	.	.	.	NONE	.79649
56	TA-P1	BS	78.10109	78.10109-	NONE	NONE	.
57	NATS1	BS	.	.	NONE	NONE	.
58	NATT1	LL	.	.	.	NONE	.79649
59	CABS1	BS	.	.	NONE	NONE	.
60	MABS1	BS	49193.81762	49193.81762-	NONE	NONE	.
61	OABS1	BS	38575.00000	38575.00000-	NONE	NONE	.
62	ALGS1	BS	8198.40000	8198.40000-	NONE	NONE	.
63	LABS1	BS	238489.08921	238489.08921-	NONE	NONE	.
64	HVR1	BS	53410.00000	53410.00000-	NONE	NONE	.
65	TABS1	BS	397440.70683	397440.70683-	NONE	NONE	.
66	SDBS1	BS	2950.48575	2950.48575-	NONE	NONE	.
67	IDBS1	BS	32365.55585	32365.55585-	NONE	NONE	.
68	LDES1	BS	115053.05564	115053.05564-	NONE	NONE	.
69	TDES1	BS	150369.09724	150369.09724-	NONE	. NONE	.
70	R/EB1	BS	236440.60000	236440.60000-	NONE	NONE	.
71	R/ET1	LL	.	.	.	NONE	.00010
72	R/EL1	BS	8198.40000	8198.40000-	NONE	NONE	.
73	R/ES1	BS	244639.00000	244639.00000-	NONE	NONE	.
74	LAND2	UL	.	.	NONE	.	48.11939-
75	LREN2	BS	922.38614-	922.38614	NONE	.	.
76	AUM2	LL	.	.	.	NONE	51.44660
77	CAP2	UL	.	.	NONE	.	.74669-
78	EQT2	LL	.	.	.	NONE	.66101
79	CF2	LL	.	.	.	NONE	1.71180
80	LNTF2	UL	.	.	NONE	.	1.76196-
81	MARE2	UL	.	.	NONE	.	.80192-
82	MACC2	LL	.	.	.	NONE	.88336
83	CTAXI2	BS	442.57286-	442.57286	NONE	.	.
84	CTAP2	UL	.	.	NONE	.	2.97329-
85	CLM12	BS	.	25000.00000	NONE	25000.00000	.
86	CLM22	BS	.	25000.00000	NONE	25000.00000	.
87	CLM32	BS	.	25000.00000	NONE	25000.00000	.
88	CLM42	BS	.	25000.00000	NONE	25000.00000	.
89	IGIS2	UL	.	.	NONE	.	2.63263-
90	TAXI2	UL	.	.	NONE	.	.56634-
91	TAXP2	UL	.	.	NONE	.	3.53963-
92	ILM12	UL	5400.00000	.	NONE	5400.00000	.56634-
93	ILM22	UL	2100.00000	.	NONE	2100.00000	.17698-
94	ILM32	UL	2100.00000	.	NONE	2100.00000	.14159-
95	ILM12	UL	4300.00000	.	NONE	4300.00000	.07079-
96	ILM52	BS	2601.19048	1498.80952	NONE	4100.00000	.
97	ILM62	BS	.	4200.00000	NONE	4200.00000	.
98	ILM72	BS	.	4400.00000	NONE	4400.00000	.
99	ILM82	BS	.	5300.00000	NONE	5300.00000	.
100	ILM92	BS	.	5300.00000	NONE	5300.00000	.

NUMBER	...ROW..	AT	...ACTIVITY...	SLACK ACTIVITY	..LOWER LIMIT.	..UPPER LIMIT.	.DUAL ACTIVITY
101	IL102	BS	.	10600.00000	NONE	10600.00000	.
102	IL112	BS	.	14200.00000	NONE	14200.00000	.
103	IL122	BS	.	25600.00000	NONE	25600.00000	.
104	IL132	BS	.	23800.00000	NONE	23800.00000	.
105	IL142	BS	.	53000.00000	NONE	53000.00000	.
106	GPSR2	BS	32412.94643	32412.94643-	NONE	NONE	.
107	GPTR2	LL	.	.	.	NONE	.35449
108	OESR2	BS	32412.94643	32412.94643-	NONE	NONE	.
109	OETR2	UL	.	.	NONE	.	.35449-
110	NITS2	BS	.	.	NONE	NONE	.
111	NITT2	LL	.	.	.	NONE	.35449
112	TA-P2	BS	.	.	NONE	NONE	.
113	NATS2	BS	.	.	NONE	NONE	.
114	NATT2	LL	.	.	.	NONE	.35449
115	CABS2	BS	.	.	NONE	NONE	.
116	MABS2	BS	58963.53388	58963.53388-	NONE	NONE	.
117	OABS2	BS	38575.00000	38575.00000-	NONE	NONE	.
118	ALBS2	BS	18448.87557	18448.87557-	NONE	NONE	.
119	LABS2	BS	291417.49177	291417.49177-	NONE	NONE	.
120	HVR2	BS	53410.00000	53410.00000-	NONE	NONE	.
121	TABS2	BS	470389.30121	470389.30121-	NONE	NONE	.
122	SDBS2	BS	.	.	NONE	NONE	.
123	IDBS2	BS	25788.79375	25788.79375-	NONE	NONE	.
124	LDES2	BS	186012.82022	186012.82022-	NONE	NONE	.
125	TDES2	BS	211801.61397	211801.61397-	NONE	NONE	.
126	R/EB2	BS	236440.60000	236440.60000-	NONE	NONE	.
127	R/ET2	LL	.	.	.	NONE	.00010
128	R/EL2	BS	18448.87557	18448.87557-	NONE	NONE	.
129	R/ES2	BS	254889.47557	254889.47557-	NONE	NONE	.
130	LAND3	UL	.	.	NONE	.	39.86856-
131	LREN3	BS	1146.35635-	1146.35635	NONE	.	.
132	AUM3	LL	.	.	.	NONE	38.32310
133	CAP3	UL	.	.	NONE	.	.66693-
134	EQT3	LL	.	.	.	NONE	.66101
135	CF3	LL	.	.	.	NONE	1.42213
136	LNTF3	UL	.	.	NONE	.	1.42213-
137	MARE3	UL	.	.	NONE	.	.63344-
138	MACC3	LL	.	.	.	NONE	.51249
139	CTAXI3	UL	.	.	NONE	.	.17944-
140	CTAP3	UL	.	.	NONE	.	1.19627-
141	CLM13	BS	.	25000.00000	NONE	25000.00000	.
142	CLM23	BS	.	25000.00000	NONE	25000.00000	.
143	CLM33	BS	.	25000.00000	NONE	25000.00000	.
144	CLM43	BS	.	25000.00000	NONE	25000.00000	.
145	IGIS3	UL	.	.	NONE	.	1.99724-
146	TAXI3	UL	.	.	NONE	.	.45777-
147	TAXP3	UL	.	.	NONE	.	2.86104-
148	ILM13	UL	5400.00000	.	NONE	5400.00000	.45777-
149	ILM23	UL	2100.00000	.	NONE	2100.00000	.14305-
150	ILM33	UL	2100.00000	.	NONE	2100.00000	.11444-
151	ILM43	UL	4300.00000	.	NONE	4300.00000	.05722-

NUMBER	...ROW..	AT	...ACTIVITY...	SLACK ACTIVITY	..LOWER LIMIT.	..UPPER LIMIT.	.DUAL ACTIVITY
152	ILM53	BS	2601.19048	1498.80952	NONE	4100.00000	.
153	ILM63	BS	.	4200.00000	NONE	4200.00000	.
154	ILM73	BS	.	4400.00000	NONE	4400.00000	.
155	ILM83	BS	.	5300.00000	NONE	5300.00000	.
156	ILM93	BS	.	5300.00000	NONE	5300.00000	.
157	IL103	BS	.	10600.00000	NONE	10600.00000	.
158	IL113	BS	.	14200.00000	NONE	14200.00000	.
159	IL123	BS	.	25600.00000	NONE	25600.00000	.
160	IL133	BS	.	23800.00000	NONE	23800.00000	.
161	IL143	BS	.	53000.00000	NONE	53000.00000	.
162	GPSR3	BS	44290.08680	44290.08680-	NONE	NONE	.
163	GPTR3	LL	.	.	.	NONE	.29679
164	OESR3	BS	44290.08679	44290.08679-	NONE	NONE	.
165	OETR3	UL	.	.	NONE	.	.29679-
166	NITS3	BS	.	.	NONE	NONE	.
167	NITT3	LL	.	.	.	NONE	.29679
168	TA-P3	BS	.	.	NONE	NONE	.
169	NATS3	BS	.	.	NONE	NONE	.
170	NATT3	LL	.	.	.	NONE	.00020
171	CABS3	BS	.	.	NONE	NONE	.
172	MABS3	BS	73280.82971	73280.82971-	NONE	NONE	.
173	OABS3	BS	38575.00000	38575.00000-	NONE	NONE	.
174	AIGS3	BS	31228.53551	31228.53551-	NONE	NONE	.
175	LABS3	BS	381660.36306	381660.36306-	NONE	NONE	.
176	INR3	BS	53410.00000	53410.00000-	NONE	NONE	.
177	TABS3	BS	578154.72828	578154.72828-	NONE	NONE	.
178	SDBS3	BS	.	.	NONE	NONE	.
179	IDBS3	BS	18289.54600	18289.54600-	NONE	NONE	.
180	IDES3	BS	285990.40157	285990.40157-	NONE	NONE	.
181	IDES3	BS	304279.94757	304279.94757-	NONE	NONE	.
182	R/EB3	BS	236440.60000	236440.60000-	NONE	NONE	.
183	R/ET3	LL	.	.	.	NONE	.00010
184	R/EL3	BS	31228.53551	31228.53551-	NONE	NONE	.
185	R/ES3	BS	267669.13551	267669.13551-	NONE	NONE	.
186	LAND4	UL	.	.	NONE	.	30.88125-
187	LREN4	BS	1467.94955-	1467.94955	NONE	.	.
188	AUM4	LL	.	.	.	NONE	54.84924
189	CAP4	UL	.	.	NONE	.	.59951-
190	EQT4	LL	.	.	.	NONE	.66101
191	CF4	LL	.	.	.	NONE	1.15538
192	LNIF4	UL	.	.	NONE	.	1.15538-
193	MARE4	UL	.	.	NONE	.	.49983-
194	MACC4	LL	.	.	.	NONE	.14627
195	CTAXI4	UL	.	.	NONE	.	.22254-
196	CTAP4	UL	.	.	NONE	.	1.97828-
197	CLM14	BS	.	25000.00000	NONE	25000.00000	.
198	CLM24	BS	.	25000.00000	NONE	25000.00000	.
199	CLM34	BS	.	25000.00000	NONE	25000.00000	.
200	CLM44	BS	.	25000.00000	NONE	25000.00000	.
201	IGIS4	UL	.	.	NONE	.	1.46457-
202	TAXI4	UL	.	.	NONE	.	.36596-

NUMBER	...ROW..	AT	...ACTIVITY...	SLACK ACTIVITY	..LOWER LIMIT.	..UPPER LIMIT.	.DUAL ACTIVITY
203	TAXP4	UL	.	.	NONE	.	2.28727-
204	ILM14	UL	5400.00000	.	NONE	5400.00000	.36596-
205	ILM24	UL	2100.00000	.	NONE	2100.00000	.11436-
206	ILM34	UL	2100.00000	.	NONE	2100.00000	.09149-
207	ILM44	UL	4300.00000	.	NONE	4300.00000	.04575-
208	ILM54	BS	2601.19048	1498.80952	NONE	4100.00000	.
209	ILM64	BS	.	4200.00000	NONE	4200.00000	.
210	ILM74	BS	.	4400.00000	NONE	4400.00000	.
211	ILM84	BS	.	5300.00000	NONE	5300.00000	.
212	ILM94	BS	.	5300.00000	NONE	5300.00000	.
213	IL104	BS	.	10600.00000	NONE	10600.00000	.
214	IL114	BS	.	14200.00000	NONE	14200.00000	.
215	IL124	BS	.	25600.00000	NONE	25600.00000	.
216	IL134	BS	.	23800.00000	NONE	23800.00000	.
217	IL144	BS	.	53000.00000	NONE	53000.00000	.
218	GPSR4	BS	61344.17431	61344.17431-	NONE	NONE	.
219	GPTR4	LL	.	.	.	NONE	.16577
220	OLSR4	BS	61344.17431	61344.17431-	NONE	NONE	.
221	OETR4	UL	.	.	NONE	.	.16577-
222	NITS4	BS	.	.	NONE	NONE	.
223	NITT4	LL	.	.	.	NONE	.16577
224	TA-P4	BS	.	.	NONE	NONE	.
225	NATS4	BS	.	.	NONE	NONE	.
226	NATT4	LL	.	.	.	NONE	.00020
227	CABS4	BS	.	.	NONE	NONE	.
228	MABS4	BS	93838.67517	93838.67517-	NONE	NONE	.
229	OABS4	BS	38575.00000	38575.00000-	NONE	NONE	.
230	ALGS4	BS	47741.79874	47741.79874-	NONE	NONE	.
231	LABS4	BS	502122.74478	502122.74478-	NONE	NONE	.
232	HVR4	BS	53410.00000	53410.00000-	NONE	NONE	.
233	TABS4	BS	735688.21869	735688.21869-	NONE	NONE	.
234	SDBS4	BS	.	.	NONE	NONE	.
235	IDBS4	BS	9743.87385	9743.87385-	NONE	NONE	.
236	LDES4	BS	431954.80585	431954.80585-	NONE	NONE	.
237	TDES4	BS	441698.67969	441698.67969-	NONE	NONE	.
238	R/E84	BS	236440.60000	236440.60000-	NONE	NONE	.
239	R/ET4	LL	.	.	.	NONE	.00010
240	R/EL4	BS	47741.79874	47741.79874-	NONE	NONE	.
241	R/ES4	BS	284182.39874	284182.39874-	NONE	NONE	.
242	LAND5	UL	.	.	NONE	.	80.54876-
243	LREN5	BS	2218.78152-	2218.78152	NONE	.	.
244	AUM5	LL	.	.	.	NONE	20.29945
245	CAP5	UL	.	.	NONE	.	.53668-
246	EQT5	LL	.	.	.	NONE	.66101
247	CF5	LL	.	.	.	NONE	.94878
248	LNTF5	UL	.	.	NONE	.	.94878-
249	MARE5	UL	.	.	NONE	.	.11981-
250	MACC5	LL	.	.	.	NONE	.04544
251	CTAXI5	UL	.	.	NONE	.	.25987-
252	CTAP5	UL	.	.	NONE	.	1.73248-
253	CLM15	BS	10990.74551	14009.25449	NONE	25000.00000	.

NUMBER	...ROW..	AT	...ACTIVITY...	SLACK ACTIVITY	..LOWER LIMIT.	..UPPER LIMIT.	.DUAL ACTIVITY
254	CLM25	BS	.	25000.00000	NONE	25000.00000	.
255	CLM35	BS	.	25000.00000	NONE	25000.00000	.
256	CLM45	BS	.	25000.00000	NONE	25000.00000	.
257	IGIS5	UL	.	.	NONE	.	.96961-
258	TAXI5	UL	.	.	NONE	.	.28050-
259	TAXP5	UL	.	.	NONE	.	1.75311-
260	ILM15	UL	5400.00000	.	NONE	5400.00000	.28050-
261	ILM25	UL	2100.00000	.	NONE	2100.00000	.08766-
262	ILM35	UL	2100.00000	.	NONE	2100.00000	.07012-
263	ILM45	UL	4300.00000	.	NONE	4300.00000	.03506-
264	ILM55	BS	2601.19048	1498.80952	NONE	4100.00000	.
265	ILM65	BS	.	4200.00000	NONE	4200.00000	.
266	ILM75	BS	.	4400.00000	NONE	4400.00000	.
267	ILM85	BS	.	5300.00000	NONE	5300.00000	.
268	ILM95	BS	.	5300.00000	NONE	5300.00000	.
269	IL105	BS	.	10600.00000	NONE	10600.00000	.
270	IL115	BS	.	14200.00000	NONE	14200.00000	.
271	IL125	BS	.	25600.00000	NONE	25600.00000	.
272	IL135	BS	.	23800.00000	NONE	23800.00000	.
273	IL145	BS	.	53000.00000	NONE	53000.00000	.
274	GPSR5	BS	101160.79357	101160.79357-	NONE	NONE	.
275	GPTR5	LL	.	.	.	NONE	.00020
276	OESR5	BS	90170.04806	90170.04806-	NONE	NONE	.
277	OETR5	UL	.	.	NONE	.	.00020-
278	NIIS5	BS	10990.74551	10990.74551-	NONE	NONE	.
279	NIIT5	LL	.	.	.	NONE	.00020
280	TA-P5	BS	1648.61183	1648.61183-	NONE	NONE	.
281	NATS5	BS	9342.13369	9342.13369-	NONE	NONE	.
282	NATT5	LL	.	.	.	NONE	.00020
283	CABS5	BS	.	.	NONE	NONE	.
284	MABS5	BS	141835.60872	141835.60872-	NONE	NONE	.
285	OABS5	BS	38575.00000	38575.00000-	NONE	NONE	.
286	ALGS5	BS	69614.24708	69614.24708-	NONE	NONE	.
287	LABS5	BS	794620.60038	794620.60038-	NONE	NONE	.
288	HVR5	BS	53410.00000	53410.00000-	NONE	NONE	.
289	TABS5	BS	1098055.45618	1098055.45618-	NONE	NONE	.
290	SDBS5	BS	.	.	NONE	NONE	.
291	IDBS5	BS	.	.	NONE	NONE	.
292	LDES5	BS	764447.27214	764447.27214-	NONE	NONE	.
293	TDES5	BS	764447.27214	764447.27214-	NONE	NONE	.
294	R/EB5	BS	245782.73369	245782.73369-	NONE	NONE	.
295	R/ET5	LL	.	.	.	NONE	.00010
296	R/EL5	BS	69614.24708	69614.24708-	NONE	NONE	.
297	R/ES5	BS	315396.98077	315396.98077-	NONE	NONE	.
298	USER1	UL	160.00000	.	NONE	160.00000	315.81349-
299	USER2	UL	160.00000	.	NONE	160.00000	295.71399-
300	USER3	UL	160.00000	.	NONE	160.00000	237.98835-
301	USER4	UL	160.00000	.	NONE	160.00000	190.92343-
302	USER5	UL	160.00000	.	NONE	160.00000	96.42072-

NUMBER	.COLUMNS	AT	...ACTIVITY...	..INPUT COST..	..LOWER LIMIT.	..UPPER LIMIT.	.REDUCED COST.
303	CEO	BS	1451.00000	.	.	NONE	.
304	OEAO	BS	38575.00000	.	.	NONE	.
305	LOWNO	BS	320.00000	610.46600	.	NONE	.
306	HVO	BS	53410.00000	.	.	NONE	.
307	BIO	BS	38135.00000	.40616-	.	NONE	.
308	BLO	BS	61602.00000	1.37140-	.	NONE	.
309	MACBO	BS	37820.00000	.24543-	.	NONE	.
310	RE-TO	BS	236440.60000	.	.	NONE	.
311	ETO	BS	201972.60000	.	.	NONE	.
312	CN-T1	BS	15000.00000	.	.	NONE	.
313	CN-T2	BS	15000.00000	.	.	NONE	.
314	CN-T3	BS	15000.00000	.	.	NONE	.
315	CN-T4	BS	15000.00000	.	.	NONE	.
316	CN-T5	BS	15000.00000	.	.	NONE	.
317	WO1	LL	.	25.51000	.	NONE	33.01020-
318	WR1	LL	.	2.55000-	.	NONE	58.65927-
319	CO1	BS	192.38881	82.67000	.	NONE	.
320	CR1	LL	.	14.49000	.	NONE	166.29568-
321	AO1	BS	192.38881	119.34000	.	NONE	.
322	GO1	LL	.	45.58090-	.	NONE	154.35940-
323	GR1	LL	.	59.87000-	.	NONE	131.71063-
324	HC1	BS	.	63.37000	.	NONE	.
325	CF-E1	LL	.	.	.	NONE	1.51773-
326	BS1	BS	8682.50680	.13330-	.	NONE	.
327	LB1	BS	64.77761	610.46600	.	NONE	.
328	BL1	BS	53623.54124	1.24340-	.	NONE	.
329	MAPU1	BS	17992.31762	.	.	NONE	.
330	BI1	LL	.	.56034-	.	NONE	.13107-
331	MACB1	BS	49193.81762	.	.	NONE	.
332	CF-F1	BS	7510.66560	.	.	NONE	.
333	ET1	BS	183005.54184	.	.	NONE	.
334	TEST1	BS	2950.48575	.09070-	.	NONE	.
335	SA-I1	BS	16501.19018	.	.	NONE	.
336	CTB11	BS	520.67396	.	.	NONE	.
337	CTB21	LL	.	.	.	NONE	.11783-
338	CTB31	LL	.	.	.	NONE	.58913-
339	CTB41	LL	.	.	.	NONE	.98188-
340	TPCO1	BS	78.10109	.95230-	.	NONE	.
341	CE1	LL	.	.	.	NONE	.46694-
342	ITB11	BS	5400.00000	.	.	NONE	.
343	ITB21	BS	2100.00000	.	.	NONE	.
344	ITB31	BS	2100.00000	.	.	NONE	.
345	ITB41	BS	4300.00000	.	.	NONE	.
346	ITB51	BS	2601.19048	.	.	NONE	.
347	ITB61	LL	.	.	.	NONE	.07949-
348	ITB71	LL	.	.	.	NONE	.23846-
349	ITB81	LL	.	.	.	NONE	.35769-
350	ITB91	LL	.	.	.	NONE	.47691-
351	IT101	LL	.	.	.	NONE	.67563-

NUMBER	COLUMNS	AT	...ACTIVITY...	..INPUT COST..	..LOWER LIMIT.	..UPPER LIMIT.	.REDUCED COST.
352	IT111	LL	.	.	.	NONE	.87434-
353	IT121	LL	.	.	.	NONE	1.03302-
354	IT131	LL	.	.	.	NONE	1.15254-
355	IT141	LL	.	.	.	NONE	1.31152-
356	IT151	LL	.	.	.	NONE	1.35126-
357	ITAXP	BS	1501.19048	.95230-	.	NONE	.
358	GP-T1	BS	24308.32299	.	.	NONE	.
359	DE-T1	BS	24230.22190	.	.	NONE	.
360	NB-T1	BS	78.10109	.	.	NONE	.
361	NI-T1	LL	.	.00010	.	NONE	.79629-
362	RE-T1	BS	236440.60000	.	.	NONE	.
363	WO2	LL	.	24.30000	.	NONE	21.82449-
364	WR2	LL	.	2.43000-	.	NONE	61.32864-
365	CO2	BS	230.59653	78.74000	.	NONE	.
366	CR2	LL	.	13.80000	.	NONE	164.76693-
367	AO2	BS	230.59653	113.66000	.	NONE	.
368	GO2	LL	.	43.41040-	.	NONE	131.93427-
369	GR2	LL	.	57.01580-	.	NONE	97.42028-
370	HC2	BS	.	60.35240	.	NONE	.
371	CF-E2	LL	.	.	.	NONE	1.05079-
372	BS2	BS	10406.82160	.12690-	.	NONE	.
373	LB2	BS	76.41546	610.46600	.	NONE	.
374	BL2	BS	71307.03690	1.12080-	.	NONE	.
375	MAPU2	BS	18378.63434	.07669	.	NONE	.
376	BI2	LL	.	.66869-	.	NONE	.14634-
377	MACB2	BS	58963.53388	.	.	NONE	.
378	CF-F2	LL	.	.	.	NONE	.41678-
379	ET2	BS	164899.34382	.	.	NONE	.
380	TEST2	LL	.	.08640-	.	NONE	.03631-
381	SA-I2	BS	16501.19048	.	.	NONE	.
382	CTB12	LL	.	.	.	NONE	.44599-
383	CTB22	LL	.	.	.	NONE	.53519-
384	CTB32	LL	.	.	.	NONE	.89199-
385	CTB42	LL	.	.	.	NONE	1.18932-
386	CTB52	LL	.	.	.	NONE	1.36771-
387	TPCO2	BS	.	.90700-	.	NONE	.
388	CE2	LL	.	.	.	NONE	.28967-
389	ITB12	BS	5400.00000	.	.	NONE	.
390	ITB22	BS	2100.00000	.	.	NONE	.
391	ITB32	BS	2100.00000	.	.	NONE	.
392	ITB42	BS	4300.00000	.	.	NONE	.
393	ITB52	BS	2601.19048	.	.	NONE	.
394	ITB62	LL	.	.	.	NONE	.07079-
395	ITB72	LL	.	.	.	NONE	.21238-
396	ITB82	LL	.	.	.	NONE	.31857-
397	ITB92	LL	.	.	.	NONE	.42476-
398	IT102	LL	.	.	.	NONE	.60174-
399	IT112	LL	.	.	.	NONE	.77872-
400	IT122	LL	.	.	.	NONE	.92030-
401	IT132	LL	.	.	.	NONE	1.02649-
402	IT142	LL	.	.	.	NONE	1.16808-

NUMBER	COLUMNS	AT	...ACTIVITY...	..INPUT COST..	..LOWER LIMIT.	..UPPER LIMIT.	.REDUCED COST.
403	IT152	LL	.	.	.	NONE	1.20347-
404	ITAXP2	BS	1501.19048	.90700-	.	NONE	.
405	GP-T2	BS	32412.94643	.	.	NONE	.
406	OE-T2	BS	32412.94643	.	.	NONE	.
407	NB-T2	BS	.	.	.	NONE	.
408	NI-T2	LL	.	.00010	.	NONE	.35429-
409	RE-T2	BS	236440.60000	.	.	NONE	.
410	WO3	LL	.	23.14000	.	NONE	21.14215-
411	WR3	LL	.	2.32000-	.	NONE	52.10199-
412	CO3	BS	286.58909	74.99000	.	NONE	.
413	CR3	LL	.	13.14000	.	NONE	132.20803-
414	AO3	BS	286.58909	108.25000	.	NONE	.
415	GO3	LL	.	41.34320-	.	NONE	115.12903-
416	GR3	LL	.	45.56010-	.	NONE	102.56953-
417	HC3	BS	.	57.78500	.	NONE	.
418	CF-E3	LL	.	.	.	NONE	.76112-
419	BS3	BS	12933.76553	.12090-	.	NONE	.
420	LB3	BS	111.98511	610.46600	.	NONE	.
421	BL3	BS	100570.60359	1.00060-	.	NONE	.
422	MAPU3	BS	24635.91426	.27620	.	NONE	.
423	BI3	LL	.	.73813-	.	NONE	.15644-
424	MACB3	BS	73280.82971	.	.	NONE	.
425	CF-F3	BS	4733.78196	.	.	NONE	.
426	ET3	BS	135539.01246	.	.	NONE	.
427	TEST3	BS	.	.08230-	.	NONE	.
428	CE3	LL	.	.	.	NONE	.26674-
429	SA-I3	BS	16501.19048	.	.	NONE	.
430	CTB13	BS	.	.	.	NONE	.
431	CTB23	LL	.	.	.	NONE	.03589-
432	CTB33	LL	.	.	.	NONE	.17944-
433	CTB43	LL	.	.	.	NONE	.29907-
434	CTB53	LL	.	.	.	NONE	.37084-
435	TPC03	LL	.	.86380-	.	NONE	1.08986-
436	ITB13	BS	5400.00000	.	.	NONE	.
437	ITB23	BS	2100.00000	.	.	NONE	.
438	ITB33	BS	2100.00000	.	.	NONE	.
439	ITB43	BS	4300.00000	.	.	NONE	.
440	ITB53	BS	2601.19048	.	.	NONE	.
441	ITB63	LL	.	.	.	NONE	.05722-
442	ITB73	LL	.	.	.	NONE	.17166-
443	ITB83	LL	.	.	.	NONE	.25749-
444	ITB93	LL	.	.	.	NONE	.34333-
445	IT103	LL	.	.	.	NONE	.48638-
446	IT113	LL	.	.	.	NONE	.62943-
447	IT123	LL	.	.	.	NONE	.74387-
448	IT133	LL	.	.	.	NONE	.82970-
449	IT143	LL	.	.	.	NONE	.94414-
450	IT153	LL	.	.	.	NONE	.97276-
451	ITAXP3	BS	1501.19048	.86380-	.	NONE	.
452	GP-T3	BS	44290.08680	.	.	NONE	.
453	OE-T3	BS	44290.08680	.	.	NONE	.

NUMBER	COLUMNS	AT	...ACTIVITY...	..INPUT COST..	..LOWER LIMIT.	..UPPER LIMIT.	.REDUCED COST.
454	NB-T3	LL	.	.	.	NONE	.29659-
455	NI-T3	BS	.	.00010	.	NONE	.
456	RE-T3	BS	236440.60000	.	.	NONE	.
457	WO4	BS	.	22.04000	.	NONE	.
458	WR4	LL	.	2.20000-	.	NONE	25.73481-
459	CO4	BS	366.98739	71.42000	.	NONE	.
460	CR4	LL	.	12.51000	.	NONE	106.68928-
461	AO4	BS	366.98739	103.09000	.	NONE	.
462	GO4	LL	.	39.37450-	.	NONE	38.59697-
463	GR4	LL	.	51.71510-	.	NONE	36.53548-
464	HC4	LL	.	54.74260	.	NONE	51.65626-
465	CF-E4	LL	.	.	.	NONE	.49437-
466	BS4	BS	16562.14083	.11520-	.	NONE	.
467	LB4	BS	160.79660	610.46600	.	NONE	.
468	BL4	BS	146925.95763	.89100-	.	NONE	.
469	MAPU4	BS	33381.99066	.50929	.	NONE	.
470	BI4	LL	.	.77468-	.	NONE	.15982-
471	MACB4	BS	93838.67517	.	.	NONE	.
472	CF-F4	BS	6918.41474	.	.	NONE	.
473	ET4	BS	93092.93813	.	.	NONE	.
474	TEST4	BS	.	.07840-	.	NONE	.
475	CE4	LL	.	.	.	NONE	.20660-
476	SA-I4	BS	16501.19048	.	.	NONE	.
477	CTB14	LL	.	.	.	NONE	.07420-
478	CTB24	LL	.	.	.	NONE	.13355-
479	CTB34	LL	.	.	.	NONE	.37094-
480	CTB44	LL	.	.	.	NONE	.56877-
481	CTB54	LL	.	.	.	NONE	.68747-
482	TPC04	BS	.	.82270-	.	NONE	.
483	ITB14	BS	5400.00000	.	.	NONE	.
484	ITB24	BS	2100.00000	.	.	NONE	.
485	ITP34	BS	2100.00000	.	.	NONE	.
486	ITB44	BS	4300.00000	.	.	NONE	.
487	ITB54	BS	2601.19048	.	.	NONE	.
488	ITB64	LL	.	.	.	NONE	.04575-
489	ITB74	LL	.	.	.	NONE	.13724-
490	ITB84	LL	.	.	.	NONE	.20585-
491	ITB94	LL	.	.	.	NONE	.27447-
492	IT104	LL	.	.	.	NONE	.38884-
493	IT114	LL	.	.	.	NONE	.50320-
494	IT124	LL	.	.	.	NONE	.59469-
495	IT134	LL	.	.	.	NONE	.66331-
496	IT144	LL	.	.	.	NONE	.75480-
497	IT154	LL	.	.	.	NONE	.77767-
498	ITAXP4	BS	1501.19048	.82270-	.	NONE	.
499	GP-T4	BS	61344.17431	.	.	NONE	.
500	OE-T4	BS	61344.17431	.	.	NONE	.
501	NB-T4	LL	.	.	.	NONE	.16557-
502	NI-T4	BS	.	.00010	.	NONE	.
503	RE-T4	BS	236440.60000	.	.	NONE	.
504	WO5	LL	.	20.99000	.	NONE	50.63663-

NUMBER	.COLUMNS	AT	...ACTIVITY...	..INPUT COST..	..LOWER LIMIT.	..UPPER LIMIT.	.REDUCED COST.
505	WR5	LL	.	2.10000-	.	NONE	13.48596-
506	CO5	BS	554.69538	68.02000	.	NONE	.
507	CR5	LL	.	11.92000	.	NONE	24.89154-
508	AO5	BS	554.69538	98.18000	.	NONE	.
509	GO5	LL	.	37.49960-	.	NONE	121.95866-
510	GR5	LL	.	49.25250-	.	NONE	63.49946-
511	HC5	BS	.	52.13580	.	NONE	.
512	CF-E5	LL	.	.	.	NONE	.28777-
513	BS5	BS	25033.40251	.10970-	.	NONE	.
514	LB5	BS	375.41598	610.46600	.	NONE	.
515	BL5	BS	333997.13851	.78353-	.	NONE	.
516	MAPU5	BS	64418.70171	.78353	.	NONE	.
517	B15	LL	.	.78353-	.	NONE	.16525-
518	MA.B5	BS	141835.60872	.	.	NONE	.
519	CE5	LL	.	.	.	NONE	.94878-
520	CF-F5	BS	22919.41880	.	.	NONE	.
521	TEST5	LL	.	.90110-	.	NONE	.61336-
522	SA-I5	BS	16501.19048	.	.	NONE	.
523	CIB15	BS	10990.74551	.	.	NONE	.
524	CIB25	LL	.	.	.	NONE	.05197-
525	CIB35	LL	.	.	.	NONE	.25987-
526	CIB45	LL	.	.	.	NONE	.43312-
527	CIB55	LL	.	.	.	NONE	.53707-
528	TPC05	BS	1648.61183	.78350-	.	NONE	.
529	ITB15	BS	5400.00000	.	.	NONE	.
530	ITB25	BS	2100.00000	.	.	NONE	.
531	ITB35	BS	2100.00000	.	.	NONE	.
532	ITB45	BS	4300.00000	.	.	NONE	.
533	ITB55	BS	2601.19048	.	.	NONE	.
534	ITB65	LL	.	.	.	NONE	.03506-
535	ITB75	LL	.	.	.	NONE	.10519-
536	ITB85	LL	.	.	.	NONE	.15778-
537	ITB95	LL	.	.	.	NONE	.21037-
538	IT105	LL	.	.	.	NONE	.29803-
539	IT115	LL	.	.	.	NONE	.38568-
540	IT125	LL	.	.	.	NONE	.45581-
541	IT135	LL	.	.	.	NONE	.50840-
542	IT145	LL	.	.	.	NONE	.57853-
543	IT155	LL	.	.	.	NONE	.59606-
544	ITAXP5	BS	1501.19048	.78350-	.	NONE	.
545	GP-T5	BS	101160.79357	.	.	NONE	.
546	OE-T5	BS	90170.04806	.	.	NONE	.
547	NB-T5	BS	10990.74551	.	.	NONE	.
548	NI-T5	BS	9342.13369	.00010	.	NONE	.
549	CN-TO	LL	.	.	.	NONE	.00010-
550	RE-T5	BS	245782.73369	.00010	.	NONE	.

APPENDIX C(5)

INITIAL RESULTS FOR THE 1120 ACRE CORPORATION

BER	.. ROW..	AT	...ACTIVITY...	SLACK ACTIVITY	..LOWER LIMIT.	..UPPER LIMIT.	.DUAL ACTIVITY
1	OBJ1	BS	915227.66524	915227.66524-	NONE	NONE	1.00000
2	OBJ2	BS	1037273.05700	1037273.05700-	NONE	NONE	.
3	OBJ3	BS	41370.45700	41370.45700-	NONE	NONE	.
4	CAINT	UL	12081.00000	.	NONE	12081.00000	2.75289-
5	OAINT	EQ	183370.00000	.	183370.00000	183370.00000	.64173-
6	HAINT	EQ	378887.00000	.	378887.00000	378887.00000	.64173-
7	MAINT	UL	125744.00000	.	NONE	125744.00000	2.13800-
8	LAINT	UL	1120.00000	.	NONE	1120.00000	1282.89182-
9	IBINT	LL	236411.00000	.	236411.00000	NONE	3.32081
10	LBINT	LL	184994.00000	.	184994.00000	NONE	3.18794
11	REINT	LL	.	.	.	NONE	.64173
12	AVEQT	LL	.	.	.	NONE	.64163
13	CNCO1	LL	40000.00000	.	40000.00000	NONE	4.05077
14	CNCO2	LL	40000.00000	.	40000.00000	NONE	3.58867
15	CNCO3	LL	40000.00000	.	40000.00000	NONE	2.81349
16	CNCO4	LL	40000.00000	.	40000.00000	NONE	2.14041
17	CNCO5	LL	40000.00000	.	40000.00000	NONE	1.50144
18	LAND1	UL	.	.	NONE	.	68.03641-
19	LREN1	BS	2731.43518-	2731.43518	NONE	.	.
20	AUM1	LL	.	.	.	NONE	56.25851
21	CAP1	UL	.	.	NONE	.	.75506-
22	EQT1	LL	.	.	.	NONE	.64163
23	CF1	LL	.	.	.	NONE	2.11116
24	LNTF1	UL	.	.	NONE	.	2.11116-
25	MARE1	UL	.	.	NONE	.	.76197-
26	MACC1	LL	.	.	.	NONE	1.34919
27	CTAXI1	UL	.	.	NONE	.	.54721-
28	CTAP1	UL	.	.	NONE	.	3.64806-
29	CLM11	BS	.	25000.00000	NONE	25000.00000	.
30	CLM21	BS	.	25000.00000	NONE	25000.00000	.
31	CLM31	BS	.	25000.00000	NONE	25000.00000	.
32	CLM41	BS	.	25000.00000	NONE	25000.00000	.
33	IGIS1	UL	.	.	NONE	.	4.05077-
34	TAXI1	UL	.	.	NONE	.	1.90117-
35	TAXP1	UL	.	.	NONE	.	5.00307-
36	ILM11	UL	5400.00000	.	NONE	5400.00000	1.90117-
37	ILM21	UL	2100.00000	.	NONE	2100.00000	1.35083-
38	ILM31	UL	2100.00000	.	NONE	2100.00000	1.30080-
39	ILM41	UL	4300.00000	.	NONE	4300.00000	1.20074-
40	ILM51	UL	4100.00000	.	NONE	4100.00000	1.10068-
41	ILM61	UL	4200.00000	.	NONE	4200.00000	1.00061-
42	ILM71	UL	4400.00000	.	NONE	4400.00000	.80049-
43	ILM81	UL	5300.00000	.	NONE	5300.00000	.65040-
44	ILM91	UL	5300.00000	.	NONE	5300.00000	.50031-
45	ILI01	UL	10600.00000	.	NONE	10600.00000	.25015-
46	IL111	BS	3180.64516	11019.35484	NONE	14200.00000	.
47	IL121	BS	.	25600.00000	NONE	25600.00000	.
48	IL131	BS	.	23800.00000	NONE	23800.00000	.
49	IL141	BS	.	53000.00000	NONE	53000.00000	.

NUMBER	...ROW..	AT	...ACTIVITY...	SLACK ACTIVITY	..LOWER LIMIT.	..UPPER LIMIT.	.DUAL ACTIVITY
50	GPSR1	BS	93867.36235	93867.36235-	NONE	NONE	.
51	GPTR1	LL	.	.	.	NONE	.58565
52	OESR1	BS	93867.36235	93867.36235-	NONE	NONE	.
53	OETR1	UL	.	.	NONE	.	.58565-
54	NITS1	BS	.	.	NONE	NONE	.
55	NITT1	LL	.	.	.	NONE	.58565
56	TA-P1	BS	.	.	NONE	NONE	.
57	NATS1	BS	.	.	NONE	NONE	.
58	NATT1	LL	.	.	.	NONE	.58460
59	OABS1	BS	.	.	NONE	NONE	.
60	MABS1	BS	174606.99378	174606.99378-	NONE	NONE	.
61	OABS1	BS	183370.00000	183370.00000-	NONE	NONE	.
62	ALGS1	BS	28694.40000	28694.40000-	NONE	NONE	.
63	LABS1	BS	847363.11439	847363.11439-	NONE	NONE	.
64	INR1	BS	378887.00000	378887.00000-	NONE	NONE	.
65	TABS1	BS	1646431.90817	1646431.90817-	NONE	NONE	.
66	SDBS1	BS	.	.	NONE	NONE	.
67	IDBS1	BS	200644.37981	200644.37981-	NONE	NONE	.
68	LDES1	BS	412641.86856	412641.86856-	NONE	NONE	.
69	TDES1	BS	613286.24837	613286.24837-	NONE	NONE	.
70	R/EB1	BS	995902.60000	995902.60000-	NONE	NONE	.
71	R/ET1	LL	.	.	.	NONE	.00010
72	R/EL1	BS	28694.40000	28694.40000-	NONE	NONE	.
73	R/FS1	BS	1024597.00000	1024597.00000-	NONE	NONE	.
74	LAND2	UL	.	.	NONE	.	46.89559-
75	LREN2	BS	3413.07003-	3413.07003	NONE	.	.
76	AUM2	LL	.	.	.	NONE	79.16518
77	CAP2	UL	.	.	NONE	.	.71096-
78	EQT2	LL	.	.	.	NONE	.64163
79	CF2	LL	.	.	.	NONE	1.74469
80	LNIF2	UL	.	.	NONE	.	1.72022-
81	MARF2	UL	.	.	NONE	.	.74208-
82	MACC2	LL	.	.	.	NONE	.90145
83	CTAXI2	UL	.	.	NONE	.	.49188-
84	CTAP2	UL	.	.	NONE	.	3.27920-
85	CLM12	BS	587.74755	24412.25245	NONE	25000.00000	.
86	CLM22	BS	.	25000.00000	NONE	25000.00000	.
87	CLM32	BS	.	25000.00000	NONE	25000.00000	.
88	CLM42	BS	.	25000.00000	NONE	25000.00000	.
89	IGIS2	UL	.	.	NONE	.	3.58867-
90	TAXI2	UL	.	.	NONE	.	1.70836-
91	TAXP2	UL	.	.	NONE	.	4.49567-
92	ILM12	UL	5400.00000	.	NONE	5400.00000	1.70836-
93	ILM22	UL	2100.00000	.	NONE	2100.00000	1.21383-
94	ILM32	UL	2100.00000	.	NONE	2100.00000	1.16888-
95	ILM42	UL	4300.00000	.	NONE	4300.00000	1.07896-
96	ILM52	UL	4100.00000	.	NONE	4100.00000	.98905-
97	ILM62	UL	4200.00000	.	NONE	4200.00000	.89913-
98	ILM72	UL	4400.00000	.	NONE	4400.00000	.71931-
99	ILM82	UL	5300.00000	.	NONE	5300.00000	.58444-
100	ILM92	UL	5300.00000	.	NONE	5300.00000	.44957-

MBER	...ROW..	AT	...ACTIVITY...	SLACK ACTIVITY	..LOWER LIMIT.	..UPPER LIMIT.	.DUAL ACTIVITY
101	IL102	UL	10600.00000	.	NONE	10600.00000	.22478-
102	IL112	BS	3180.64516	11019.35484	NONE	14200.00000	.
103	IL122	BS	.	25600.00000	NONE	25600.00000	.
104	IL132	BS	.	23800.00000	NONE	23800.00000	.
105	IL142	BS	.	53000.00000	NONE	53000.00000	.
106	GPSR2	BS	130014.45857	130014.45857-	NONE	NONE	.
107	GPTR2	LL	.	.	.	NONE	.62751
108	OESR2	BS	129926.29643	129926.29643-	NONE	NONE	.
109	OETR2	UL	.	.	NONE	.	.62751-
110	NITS2	BS	88.16213	88.16213-	NONE	NONE	.
111	NITT2	LL	.	.	.	NONE	.62751
112	TA-P2	BS	88.16213	88.16213-	NONE	NONE	.
113	NATS2	BS	.	.	NONE	NONE	.
114	NATT2	LL	.	.	.	NONE	.62751
115	CABS2	BS	.	.	NONE	NONE	.
116	MABS2	BS	218180.50171	218180.50171-	NONE	NONE	.
117	OABS2	BS	183370.00000	183370.00000-	NONE	NONE	.
118	ALGS2	BS	65077.11658	65077.11658-	NONE	NONE	.
119	LABS2	BS	1083426.89645	1083426.89645-	NONE	NONE	.
120	HVR2	BS	378887.00000	378887.00000-	NONE	NONE	.
121	TABS2	BS	1962451.91474	1962451.91474-	NONE	NONE	.
122	SDBS2	BS	3330.56947	3330.56947-	NONE	NONE	.
123	IDBS2	BS	159872.93875	159872.93875-	NONE	NONE	.
124	LDES2	BS	721604.53728	721604.53728-	NONE	NONE	.
125	IDES2	BS	884808.04549	884808.04549-	NONE	NONE	.
126	R/EB2	BS	995902.60000	995902.60000-	NONE	NONE	.
127	R/ET2	LL	.	.	.	NONE	.00010
128	R/EL2	BS	65077.11658	65077.11658-	NONE	NONE	.
129	R/ES2	BS	1060979.71658	1060979.71658-	NONE	NONE	.
130	LAND3	UL	.	.	NONE	.	37.87501-
131	LREN3	BS	4344.38568-	4344.38568	NONE	.	.
132	AUM3	LL	.	.	.	NONE	35.96721
133	CAP3	UL	.	.	NONE	.	.63997-
134	EQT3	LL	.	.	.	NONE	.64163
135	CF3	LL	.	.	.	NONE	1.41262
136	LNTF3	UL	.	.	NONE	.	1.39764-
137	MARE3	UL	.	.	NONE	.	.59949-
138	MACC3	LL	.	.	.	NONE	.52195
139	CTAXI3	UL	.	.	NONE	.	.40234-
140	CTAP3	UL	.	.	NONE	.	2.68226-
141	CLM13	BS	21.93668	24978.06332	NONE	25000.00000	.
142	CLM23	BS	.	25000.00000	NONE	25000.00000	.
143	CLM33	BS	.	25000.00000	NONE	25000.00000	.
144	CLM43	BS	.	25000.00000	NONE	25000.00000	.
145	IGIS3	UL	.	.	NONE	.	2.81349-
146	TAXI3	UL	.	.	NONE	.	1.39737-
147	TAXP3	UL	.	.	NONE	.	3.67729-
148	ILM13	UL	5400.00000	.	NONE	5400.00000	1.39737-
149	ILM23	UL	2100.00000	.	NONE	2100.00000	.99287-
150	ILM33	UL	2100.00000	.	NONE	2100.00000	.95609-
151	ILM43	UL	4300.00000	.	NONE	4300.00000	.88255-

NUMBER	...ROW..	AT	...ACTIVITY...	SLACK ACTIVITY	..LOWER LIMIT.	..UPPER LIMIT.	.DUAL ACTIVITY
152	ILM53	UL	4100.00000	.	NONE	4100.00000	.80900-
153	ILM63	UL	4200.00000	.	NONE	4200.00000	.73546-
154	ILM73	UL	4400.00000	.	NONE	4400.00000	.58837-
155	ILM83	UL	5300.00000	.	NONE	5300.00000	.47805-
156	ILM93	UL	5300.00000	.	NONE	5300.00000	.36773-
157	IL103	UL	10600.00000	.	NONE	10600.00000	.18386-
158	IL113	BS	3180.64516	11019.35484	NONE	14200.00000	.
159	IL123	BS	.	25600.00000	NONE	25600.00000	.
160	IL133	BS	.	23800.00000	NONE	23800.00000	.
161	IL143	BS	.	53000.00000	NONE	53000.00000	.
162	GPSR3	BS	179402.12739	179402.12739-	NONE	NONE	.
163	GPTR3	LL	.	.	.	NONE	.40583
164	OESR3	BS	179398.83689	179398.83689-	NONE	NONE	.
165	OETR3	UL	.	.	NONE	.	.40583-
166	NITS3	BS	3.29050	3.29050-	NONE	NONE	.
167	NITT3	LL	.	.	.	NONE	.40583
168	TA-P3	BS	3.29050	3.29050-	NONE	NONE	.
169	NATS3	BS	.	.	NONE	NONE	.
170	NATT3	LL	.	.	.	NONE	.40583
171	CABS3	BS	.	.	NONE	NONE	.
172	MABS3	BS	277714.85453	277714.85453-	NONE	NONE	.
173	OABS3	BS	183370.00000	183370.00000-	NONE	NONE	.
174	ALGS3	BS	112365.20185	112365.20185-	NONE	NONE	.
175	LABS3	BS	1452373.91006	1452373.91006-	NONE	NONE	.
176	HVR3	BS	378887.00000	378887.00000-	NONE	NONE	.
177	TABS3	BS	2404710.96643	2404710.96643-	NONE	NONE	.
178	SDBS3	BS	3454.87731	3454.87731-	NONE	NONE	.
179	IDBS3	BS	113382.71560	113382.71560-	NONE	NONE	.
180	LDES3	BS	1152492.44053	1152492.44053-	NONE	NONE	.
181	TDES3	BS	1269330.03344	1269330.03344-	NONE	NONE	.
182	R/ED3	BS	995902.60000	995902.60000-	NONE	NONE	.
183	R/ET3	LL	.	.	.	NONE	.00010
184	R/EL3	BS	112365.20185	112365.20185-	NONE	NONE	.
185	R/ES3	BS	1108267.80185	1108267.80185-	NONE	NONE	.
186	LAND4	UL	.	.	NONE	.	29.19104-
187	LREN4	BS	5681.00577-	5681.00577	NONE	.	.
188	AUM4	LL	.	.	.	NONE	52.21978
189	CAP4	UL	.	.	NONE	.	.57803-
190	EQT4	LL	.	.	.	NONE	.64163
191	CF4	LL	.	.	.	NONE	1.14269
192	LNFF4	UL	.	.	NONE	.	1.14269-
193	MARF4	UL	.	.	NONE	.	.47862-
194	MACC4	LL	.	.	.	NONE	.15478
195	CTAX14	UL	.	.	NONE	.	.29768-
196	CTAP4	UL	.	.	NONE	.	1.98451-
197	CLM14	BS	.	25000.00000	NONE	25000.00000	.
198	CLM24	BS	.	25000.00000	NONE	25000.00000	.
199	CLM34	BS	.	25000.00000	NONE	25000.00000	.
200	CLM44	BS	.	25000.00000	NONE	25000.00000	.
201	IGIS4	UL	.	.	NONE	.	2.14041-
202	TAXI4	UL	.	.	NONE	.	1.12598-

NUMBER	...ROW..	AT	...ACTIVITY...	SLACK ACTIVITY	..LOWER LIMIT.	..UPPER LIMIT.	.DUAL ACTIVITY
203	TAXP4	UL	.	.	NONE	.	2.96311-
204	ILM14	UL	5400.00000	.	NONE	5400.00000	1.12598-
205	ILM24	UL	2100.00000	.	NONE	2100.00000	.80004-
206	ILM34	UL	2100.00000	.	NONE	2100.00000	.77041-
207	ILM44	UL	4300.00000	.	NONE	4300.00000	.71115-
208	ILM54	UL	4100.00000	.	NONE	4100.00000	.65188-
209	ILM64	UL	4200.00000	.	NONE	4200.00000	.59262-
210	ILM74	UL	4400.00000	.	NONE	4400.00000	.47410-
211	ILM84	UL	5300.00000	.	NONE	5300.00000	.38520-
212	ILM94	UL	5300.00000	.	NONE	5300.00000	.29631-
213	IL104	UL	10600.00000	.	NONE	10600.00000	.14816-
214	IL114	BS	3180.64516	11019.35484	NONE	14200.00000	.
215	IL124	BS	.	25600.00000	NONE	25600.00000	.
216	IL134	BS	.	23800.00000	NONE	23800.00000	.
217	IL144	BS	.	53000.00000	NONE	53000.00000	.
218	GPSR4	BS	250283.09083	250283.09083-	NONE	NONE	.
219	GPTR4	LL	.	.	.	NONE	.16941
220	OESR4	BS	250283.09083	250283.09083-	NONE	NONE	.
221	OETR4	UL	.	.	NONE	.	.16941-
222	NITS4	BS	.	.	NONE	NONE	.
223	NITT4	LL	.	.	.	NONE	.16941
224	TA-P4	BS	.	.	NONE	NONE	.
225	NATS4	BS	.	.	NONE	NONE	.
226	NATT4	LL	.	.	.	NONE	.01912
227	CASS4	BS	.	.	NONE	NONE	.
228	MABS4	BS	363158.29386	363158.29386-	NONE	NONE	.
229	OABS4	BS	183370.00000	183370.00000-	NONE	NONE	.
230	ALGS4	BS	174946.07756	174946.07756-	NONE	NONE	.
231	LABS4	BS	1953045.06384	1953045.06384-	NONE	NONE	.
232	HVR4	BS	378887.00000	378887.00000-	NONE	NONE	.
233	TABS1	BS	3053406.43524	3053406.43524-	NONE	NONE	.
234	SDBS4	BS	3454.87730	3454.87730-	NONE	NONE	.
235	IDBS4	BS	60405.37461	60405.37461-	NONE	NONE	.
236	IDES4	BS	1776627.45802	1776627.45802-	NONE	NONE	.
237	TDES4	BS	1840487.70993	1840487.70993-	NONE	NONE	.
238	R/EB4	BS	995902.60000	995902.60000-	NONE	NONE	.
239	R/ET4	LL	.	.	.	NONE	.00010
240	R/EL4	BS	174946.07756	174946.07756-	NONE	NONE	.
241	R/ES4	BS	1170848.67756	1170848.67756-	NONE	NONE	.
242	LANDS	UL	.	.	NONE	.	79.47815-
243	LRENS	BS	8881.80438-	8881.80438	NONE	.	.
244	AUM5	LL	.	.	.	NONE	19.51129
245	CAP5	UL	.	.	NONE	.	.51916-
246	EQT5	LL	.	.	.	NONE	.64163
247	CT5	LL	.	.	.	NONE	.94394
248	LNTE5	UL	.	.	NONE	.	.94394-
249	MARE5	UL	.	.	NONE	.	.10602-
250	MACC5	LL	.	.	.	NONE	.05439
251	CTAXI5	UL	.	.	NONE	.	.31097-
252	CTAP5	UL	.	.	NONE	.	1.72764-
253	CLM15	UL	25000.00000	.	NONE	25000.00000	.05183-

NUMBER	...ROW..	AT	...ACTIVITY...	SLACK ACTIVITY	..LOWER LIMIT.	..UPPER LIMIT.	.DUAL ACTIVITY
254	CLM25	BS	23905.15294	1094.84706	NONE	25000.00000	.
255	CLM35	BS	.	25000.00000	NONE	25000.00000	.
256	CLM45	BS	.	25000.00000	NONE	25000.00000	.
257	IGIS5	UL	.	.	NONE	.	1.50144-
258	TAXI5	UL	.	.	NONE	.	.86828-
259	TAXP5	UL	.	.	NONE	.	2.28494-
260	ILM15	UL	5400.00000	.	NONE	5400.00000	.86828-
261	ILM25	UL	2100.00000	.	NONE	2100.00000	.61693-
262	ILM35	UL	2100.00000	.	NONE	2100.00000	.59408-
263	ILM45	UL	4300.00000	.	NONE	4300.00000	.54839-
264	ILM55	UL	4100.00000	.	NONE	4100.00000	.50269-
265	ILM65	UL	4200.00000	.	NONE	4200.00000	.45699-
266	ILM75	UL	4400.00000	.	NONE	4400.00000	.36559-
267	ILM85	UL	5300.00000	.	NONE	5300.00000	.29704-
268	ILM95	UL	5300.00000	.	NONE	5300.00000	.22849-
269	ILM05	UL	10600.00000	.	NONE	10600.00000	.11425-
270	IL115	BS	3180.64516	11019.35484	NONE	14200.00000	.
271	IL125	BS	.	25600.00000	NONE	25600.00000	.
272	IL135	BS	.	23800.00000	NONE	23800.00000	.
273	IL145	BS	.	53000.00000	NONE	53000.00000	.
274	GPSR5	BS	420021.44127	420021.44127-	NONE	NONE	.
275	GPIR5	LL	.	.	.	NONE	.00020
276	OESR5	BS	370598.05674	370598.05674-	NONE	NONE	.
277	OEIR5	UL	.	.	NONE	.	.00020-
278	NIIS5	BS	49423.38453	49423.38453-	NONE	NONE	.
279	NIII5	LL	.	.	.	NONE	.00020
280	IA-P5	BS	8052.92753	8052.92753-	NONE	NONE	.
281	NAIS5	BS	41370.45700	41370.45700-	NONE	NONE	.
282	NAII5	LL	.	.	.	NONE	.00020
283	CABS5	BS	.	.	NONE	NONE	.
284	MABS5	BS	567769.34518	567769.34518-	NONE	NONE	.
285	OABS5	BS	183370.00000	183370.00000-	NONE	NONE	.
286	ALGS5	BS	259593.06353	259593.06353-	NONE	NONE	.
287	LABS5	BS	3199964.17544	3199964.17544-	NONE	NONE	.
288	HVR5	BS	378887.00000	378887.00000-	NONE	NONE	.
289	TABS5	BS	4589583.58416	4589583.58416-	NONE	NONE	.
290	SDBS5	BS	.	.	NONE	NONE	.
291	IDBS5	BS	.	.	NONE	NONE	.
292	LDES5	BS	3215340.62511	3215340.62511-	NONE	NONE	.
293	IDES5	BS	3215340.62511	3215340.62511-	NONE	NONE	.
294	R/EBS	BS	1037273.05700	1037273.05700-	NONE	NONE	.
295	R/EI5	LL	.	.	.	NONE	.00010
296	R/EL5	BS	259593.06353	259593.06353-	NONE	NONE	.
297	R/ES5	BS	1296866.12053	1296866.12053-	NONE	NONE	.
298	USER1	UL	560.00000	.	NONE	560.00000	292.99911-
299	USER2	UL	560.00000	.	NONE	560.00000	275.62560-
300	USER3	UL	560.00000	.	NONE	560.00000	225.70504-
301	USER4	UL	560.00000	.	NONE	560.00000	182.63806-
302	USER5	UL	560.00000	.	NONE	560.00000	91.01089-

NUMBER	.COLUMNS	AT	...ACTIVITY...	..INPUT COST..	..LOWER LIMIT.	..UPPER LIMIT.	.REDUCED COST.
303	CEO	BS	12081.00000	.	.	NONE	.
304	OEAO	BS	183370.00000	.	.	NONE	.
305	LOWNO	BS	1120.00000	610.46600	.	NONE	.
306	HVO	BS	378837.00000	.	.	NONE	.
307	BIO	BS	236111.00000	.40616-	.	NONE	.
308	BLO	BS	184904.00000	1.37140-	.	NONE	.
309	MACBO	BS	125744.00000	.24543-	.	NONE	.
310	RE-TO	BS	995302.00000	.	.	NONE	.
311	ETO	BS	831448.00000	.	.	NONE	.
312	CN-T1	BS	40000.00000	.	.	NONE	.
313	CN-T2	BS	40000.00000	.	.	NONE	.
314	CN-T3	BS	40000.00000	.	.	NONE	.
315	CN-T4	BS	40000.00000	.	.	NONE	.
316	CN-T5	BS	40000.00000	.	.	NONE	.
317	WO1	LL	.	25.51000	.	NONE	31.59339-
318	WR1	LL	.	2.55000-	.	NONE	54.96577-
319	CO1	BS	682.85879	82.67000	.	NONE	.
320	CR1	LL	.	14.49000	.	NONE	154.05514-
321	AO1	BS	682.85879	119.34000	.	NONE	.
322	GO1	LL	.	45.58090-	.	NONE	145.49334-
323	GR1	LL	.	59.87000-	.	NONE	123.99007-
324	HO1	BS	.	63.37000	.	NONE	.
325	CF-E1	LL	.	.	.	NONE	1.46953-
326	BS1	BS	30817.41740	.13330-	.	NONE	.
327	LO1	BS	245.71759	610.46600	.	NONE	.
328	BL1	BS	228105.85176	1.24340-	.	NONE	.
329	MAPU1	BS	70868.19378	.	.	NONE	.
330	BT1	LL	.	.56034-	.	NONE	.14063-
331	MACB1	BS	174606.99378	.	.	NONE	.
332	CF-F1	BS	6350.25641	.	.	NONE	.
333	ET1	BS	769726.75954	.	.	NONE	.
334	TEST1	BS	.	.09070-	.	NONE	.
335	SA-I1	BS	50980.64516	.	.	NONE	.
336	CIB11	BS	.	.	.	NONE	.
337	CIB21	LL	.	.	.	NONE	.10944-
338	CIB31	LL	.	.	.	NONE	.54721-
339	CIB41	LL	.	.	.	NONE	.91202-
340	IPCO1	BS	.	.95230-	.	NONE	.
341	CS1	LL	.	.	.	NONE	.36647-
342	IIB11	BS	5400.00000	.	.	NONE	.
343	IIB21	BS	2100.00000	.	.	NONE	.
344	IIB31	BS	2100.00000	.	.	NONE	.
345	IIB41	BS	4300.00000	.	.	NONE	.
346	IIB51	BS	4100.00000	.	.	NONE	.
347	IIB61	BS	4200.00000	.	.	NONE	.
348	IIB71	BS	4400.00000	.	.	NONE	.
349	IIB81	BS	5300.00000	.	.	NONE	.
350	IIB91	BS	5300.00000	.	.	NONE	.
351	IIT01	BS	10600.00000	.	.	NONE	.

NUMBER	COLUMNS	AT	ACTIVITY	INPUT COST	LOWER LIMIT	UPPER LIMIT	REDUCED COST
352	IT111	BS	3180.64516	.	.	NONE	.
353	IT121	LL	.	.	.	NONE	.20012-
354	IT131	LL	.	.	.	NONE	.35021-
355	IT141	LL	.	.	.	NONE	.55034-
356	IT151	LL	.	.	.	NONE	.60037-
357	ITAXP	BS	10980.64516	.95230-	.	NONE	.
358	GP-T1	BS	93867.36235	.	.	NONE	.
359	OE-T1	BS	93867.36235	.	.	NONE	.
360	NB-T1	LL	.	.	.	NONE	.00105-
361	NI-T1	LL	.	.00010	.	NONE	.58440-
362	RE-T1	BS	995902.60000	.	.	NONE	.
363	WO2	BS	.	24.30000	.	NONE	.
364	WR2	LL	.	2.43000-	.	NONE	35.24740-
365	CO2	BS	853.26751	78.74000	.	NONE	.
366	CR2	LL	.	13.80000	.	NONE	152.67522-
367	AO2	BS	853.26751	113.66000	.	NONE	.
368	GO2	LL	.	43.41040-	.	NONE	57.09670-
369	GR2	LL	.	57.01580-	.	NONE	16.42832-
370	HC2	LL	.	60.35240	.	NONE	57.80386-
371	CF-E2	LL	.	.	.	NONE	1.10306-
372	BS2	BS	38507.96262	.12690-	.	NONE	.
373	LB2	BS	340.81743	610.46600	.	NONE	.
374	BL2	BS	310193.51390	1.12080-	.	NONE	.
375	MAPU2	BS	74129.73185	.07669	.	NONE	.
376	BI2	LL	.	.66869-	.	NONE	.14426-
377	MACB2	BS	218180.50171	.	.	NONE	.
378	CF-F2	LL	.	.	.	NONE	.39094-
379	EI2	BS	681828.09954	.	.	NONE	.
380	TES12	BS	3330.56947	.08640-	.	NONE	.
381	SA-12	BS	50980.64516	.	.	NONE	.
382	CIB12	BS	587.74755	.	.	NONE	.
383	CIB22	LL	.	.	.	NONE	.09838-
384	CIB32	LL	.	.	.	NONE	.49188-
385	CIB42	LL	.	.	.	NONE	.81980-
386	CIB52	LL	.	.	.	NONE	1.01655-
387	TPC02	BS	68.16213	.90700-	.	NONE	.
388	CE2	LL	.	.	.	NONE	.33207-
389	IIB12	BS	5400.00000	.	.	NONE	.
390	IIB22	BS	2100.00000	.	.	NONE	.
391	IIB32	BS	2100.00000	.	.	NONE	.
392	IIB42	BS	4300.00000	.	.	NONE	.
393	IIB52	BS	4100.00000	.	.	NONE	.
394	IIB62	BS	4200.00000	.	.	NONE	.
395	IIB72	BS	4400.00000	.	.	NONE	.
396	IIB82	BS	5300.00000	.	.	NONE	.
397	IIB92	BS	5300.00000	.	.	NONE	.
398	IIB02	BS	10600.00000	.	.	NONE	.
399	IT112	BS	3180.64516	.	.	NONE	.
400	IT122	LL	.	.	.	NONE	.17983-
401	IT132	LL	.	.	.	NONE	.31470-
402	IT142	LL	.	.	.	NONE	.49452-

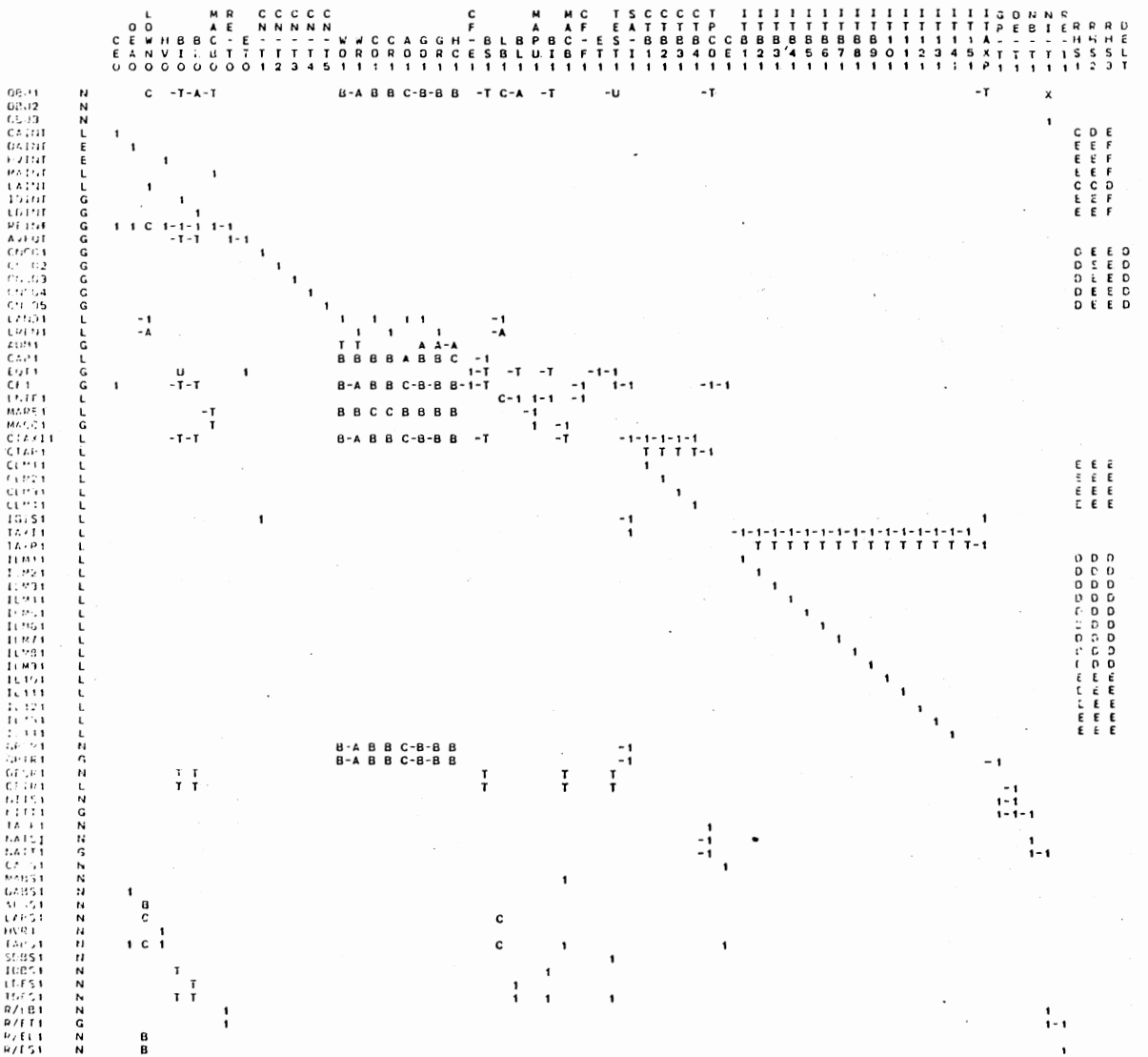
NUMBER	.COLUMNS	AT	...ACTIVITY...	..INPUT COST..	..LOWER LIMIT.	..UPPER LIMIT.	.REDUCED COST.
403	IT152	LL	.	.	.	NONE	.53948-
404	ITAXP2	BS	10980.64516	.90700-	.	NONE	.
405	GP-T2	BS	130014.45857	.	.	NONE	.
406	OE-T2	BS	129926.29643	.	.	NONE	.
407	NB-T2	BS	88.16213	.	.	NONE	.
408	NI-T2	LL	.	.00010	.	NONE	.62731-
409	RE-T2	BS	995902.60000	.	.	NONE	.
410	W03	LL	.	23.14000	.	NONE	20.43287-
411	WR3	LL	.	2.32000-	.	NONE	49.75082-
412	CO3	BS	1086.09642	74.99000	.	NONE	.
413	CR3	LL	.	13.14000	.	NONE	125.36896-
414	A03	BS	1086.09642	108.25000	.	NONE	.
415	GO3	LL	.	41.34320-	.	NONE	110.18017-
416	GR3	LL	.	45.56010-	.	NONE	97.76381-
417	HO3	BS	.	57.78500	.	NONE	.
418	CF-E3	LL	.	.	.	NONE	.77099-
419	BS3	BS	49015.53142	.12090-	.	NONE	.
420	LB3	BS	465.65782	610.46600	.	NONE	.
421	BL3	BS	433152.55422	1.00060-	.	NONE	.
422	MAPU3	BS	97715.94061	.27620	.	NONE	.
423	BI3	LL	.	.73813-	.	NONE	.15194-
424	MACB3	BS	277714.85453	.	.	NONE	.
425	CF-F3	LL	.	.	.	NONE	.01498-
426	EI3	BS	562851.40821	.	.	NONE	.
427	TES13	BS	3454.87731	.08230-	.	NONE	.
428	CE3	LL	.	.	.	NONE	.26993-
429	SA-I3	BS	50980.64516	.	.	NONE	.
430	CTB13	BS	21.93668	.	.	NONE	.
431	CTB23	LL	.	.	.	NONE	.08047-
432	CTB33	LL	.	.	.	NONE	.40234-
433	CTB43	LL	.	.	.	NONE	.67056-
434	CTB53	LL	.	.	.	NONE	.83150-
435	TPC03	BS	3.29050	.86380-	.	NONE	.
436	ITB13	BS	5400.00000	.	.	NONE	.
437	ITB23	BS	2100.00000	.	.	NONE	.
438	ITB33	BS	2100.00000	.	.	NONE	.
439	ITB43	BS	4300.00000	.	.	NONE	.
440	ITB53	BS	4100.00000	.	.	NONE	.
441	ITB63	BS	4200.00000	.	.	NONE	.
442	ITB73	BS	4400.00000	.	.	NONE	.
443	ITB83	BS	5300.00000	.	.	NONE	.
444	ITB93	BS	5300.00000	.	.	NONE	.
445	IT103	BS	10600.00000	.	.	NONE	.
446	IT113	BS	3180.64516	.	.	NONE	.
447	IT123	LL	.	.	.	NONE	.14709-
448	IT133	LL	.	.	.	NONE	.25741-
449	IT143	LL	.	.	.	NONE	.40450-
450	IT153	LL	.	.	.	NONE	.44127-
451	ITAXP3	BS	10980.64516	.86380-	.	NONE	.
452	GP-T3	BS	179402.12739	.	.	NONE	.
453	OE-T3	BS	179398.83689	.	.	NONE	.

NUMBER	COLUMNS	AT	...ACTIVITY...	..INPUT COST..	..LOWER LIMIT.	..UPPER LIMIT.	.REDUCED COST.
454	NB-T3	BS	3.29050	.	.	NONE	.
455	NI-T3	LL	.	.00010	.	NONE	.40563-
456	RE-T3	BS	995902.60000	.	.	NONE	.
457	WO4	BS	.	22.04000	.	NONE	.
458	WR4	LL	.	2.20000-	.	NONE	24.94409-
459	CO4	BS	1420.25144	71.42000	.	NONE	.
460	CR4	LL	.	12.51000	.	NONE	102.35184-
461	AO4	BS	1420.25144	103.09000	.	NONE	.
462	GO4	LL	.	39.37450-	.	NONE	37.18591-
463	GR4	LL	.	51.71510-	.	NONE	35.55186-
464	HO4	LL	.	54.74260	.	NONE	49.50695-
465	CF-E4	LL	.	.	.	NONE	.50106-
466	BS4	BS	64095.94760	.11520-	.	NONE	.
467	LB4	BS	668.31005	610.46600	.	NONE	.
468	BL4	BS	627938.83575	.89100-	.	NONE	.
469	MAPU4	BS	134043.53887	.50929	.	NONE	.
470	BI4	LL	.	.77468-	.	NONE	.15514-
471	MACB4	BS	363158.29386	.	.	NONE	.
472	CF-F4	BS	6775.85690	.	.	NONE	.
473	ET4	BS	389729.18578	.	.	NONE	.
474	TEST4	BS	3454.87730	.07840-	.	NONE	.
475	CE4	LL	.	.	.	NONE	.19876-
476	SA-I4	BS	50980.64516	.	.	NONE	.
477	CIB14	BS	.	.	.	NONE	.
478	CIB24	LL	.	.	.	NONE	.05954-
479	CIB34	LL	.	.	.	NONE	.29768-
480	CIB44	LL	.	.	.	NONE	.49613-
481	CIB54	LL	.	.	.	NONE	.61520-
482	IPC04	BS	.	.82270-	.	NONE	.
483	IIB14	BS	5400.00000	.	.	NONE	.
484	IIB24	BS	2100.00000	.	.	NONE	.
485	IIB34	BS	2100.00000	.	.	NONE	.
486	IIB44	BS	4300.00000	.	.	NONE	.
487	IIB51	BS	4100.00000	.	.	NONE	.
488	IIB64	BS	4200.00000	.	.	NONE	.
489	IIB74	BS	4400.00000	.	.	NONE	.
490	IIB84	BS	5300.00000	.	.	NONE	.
491	IIB94	BS	5300.00000	.	.	NONE	.
492	IIB04	BS	10600.00000	.	.	NONE	.
493	IT114	BS	3180.64516	.	.	NONE	.
494	IT124	LL	.	.	.	NONE	.11852-
495	IT134	LL	.	.	.	NONE	.20742-
496	IT144	LL	.	.	.	NONE	.32594-
497	IT154	LL	.	.	.	NONE	.35557-
498	IIAXP4	BS	10980.64516	.82270-	.	NONE	.
499	GP-T4	BS	250283.09083	.	.	NONE	.
500	OE-T4	BS	250283.09083	.	.	NONE	.
501	NB-I4	LL	.	.	.	NONE	.15029-
502	NI-T4	LL	.	.00010	.	NONE	.01892-
503	RE-T4	BS	995902.60000	.	.	NONE	.
504	WO5	LL	.	20.99000	.	NONE	49.96525-

NUMBER	.COLUMNS	AT	...ACTIVITY...	..INPUT COST..	..LOWER LIMIT.	..UPPER LIMIT.	.REDUCED COST.
505	WR5	LL	.	2.10000-	.	NONE	12.23640-
506	CO5	BS	2220.45110	68.02000	.	NONE	.
507	CR5	LL	.	11.92000	.	NONE	21.95627-
508	AO5	BS	2220.45110	98.18000	.	NONE	.
509	GO5	LL	.	37.49960-	.	NONE	118.92212-
510	GR5	LL	.	49.25250-	.	NONE	60.69431-
511	HC5	BS	.	52.13580	.	NONE	.
512	CF-E5	LL	.	.	.	NONE	.30231-
513	BS5	BS	100208.95795	.10970-	.	NONE	.
514	L65	BS	1600.39931	610.46600	.	NONE	.
515	BL5	BS	1444801.94903	.78353-	.	NONE	.
516	MAPU5	BS	268163.75275	.78353	.	NONE	.
517	BI5	LL	.	.78353-	.	NONE	.16041-
518	MACB5	BS	567769.34518	.	.	NONE	.
519	CE5	LL	.	.	.	NONE	.94394-
520	CF-F5	BS	70280.91533	.	.	NONE	.
521	TES15	LL	.	.90110-	.	NONE	.59382-
522	SA-I5	BS	50980.64516	.	.	NONE	.
523	CIB15	BS	25000.00000	.	.	NONE	.
524	CIB25	BS	23905.15294	.	.	NONE	.
525	CIB35	LL	.	.	.	NONE	.20732-
526	CIB45	LL	.	.	.	NONE	.36008-
527	CIB55	LL	.	.	.	NONE	.48374-
528	TPC05	BS	8052.92753	.78350-	.	NONE	.
529	IIB15	BS	5400.00000	.	.	NONE	.
530	IIB25	BS	2100.00000	.	.	NONE	.
531	IIB35	BS	2100.00000	.	.	NONE	.
532	IIB45	BS	4300.00000	.	.	NONE	.
533	IIB55	BS	4100.00000	.	.	NONE	.
534	IIB65	BS	4200.00000	.	.	NONE	.
535	IIB75	BS	4400.00000	.	.	NONE	.
536	IIB85	BS	5300.00000	.	.	NONE	.
537	IIB95	BS	5300.00000	.	.	NONE	.
538	IIC05	BS	10600.00000	.	.	NONE	.
539	IIC15	BS	3180.64516	.	.	NONE	.
540	IIC25	LL	.	.	.	NONE	.09140-
541	IIC35	LL	.	.	.	NONE	.15995-
542	IIC45	LL	.	.	.	NONE	.25134-
543	IIC55	LL	.	.	.	NONE	.27419-
544	IIAXP5	BS	10980.64516	.78350-	.	NONE	.
545	GP-I5	BS	420021.44127	.	.	NONE	.
546	OE-I5	BS	370598.05674	.	.	NONE	.
547	NB-I5	BS	49423.38453	.	.	NONE	.
548	NI-I5	BS	41370.45700	.00010	.	NONE	.
549	CN-IO	LL	.	.	.	NONE	.00010-
550	RE-I5	BS	1037273.05700	.00010	.	NONE	.

APPENDIX D

PICTURE FOR A SAMPLE YEAR



SUMMARY OF MATRIX

SYMBOL	RANGE			COUNT (INCL.RHS)
Z	LESS THAN		.000001	
Y	.000001	THRU	.000009	
X	.000010		.000099	6
W	.000100		.000999	
V	.001000		.009999	
U	.010000		.099999	37
T	.100000		.999999	384
1	1.000000		1.000000	586
A	1.000001		10.000000	73
B	10.000001		100.000000	252
C	100.000001		1,000.000000	113
D	1,000.000001		10,000.000000	147
E	10,000.000001		100,000.000000	156
F	100,000.000001		1,000,000.000000	5
G	GREATER THAN		1,000,000.000000	

MINIMUM = .100000E-03 MAXIMUM = .378887E+06

VITA

Charles Britt Moss

Candidate for the Degree of

Master of Science

Thesis: A POLYPERIOD ANALYSIS OF FINANCIAL PERFORMANCE WITH ALTERNATIVE RESOURCE ENDOWMENTS, CREDIT RESTRAINTS, AND ORGANIZATIONAL FORMS

Major Field: Agricultural Economics

Biographical:

Personal Data: Born in Elk City, Oklahoma, September 30, 1960, the son of Charles E. and Linda Moss.

Educational: Graduated from Sayre High School, Sayre, Oklahoma, in May, 1978; received Associate fo Science degree from Sayre Junior College in December 1979; received a Bachelor of Science in Agriculture from Oklahoma State University in December, 1982; completed the requirements for the Master of Science degree at Oklahoma State University in July, 1984.

Professional Experience: Undergraduate research assistant, October, 1981, to May, 1982; undergraduate teaching assistant August, 1982, to December, 1982; graduate research assistant January, 1983 to present, Oklahoma State University.