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T.C. Memo. 2000-191
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## UNITED STATES TAX COURT

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ESTATE OF EMILY F. KLAUSS, DECEASED, JOHN G. KLAUSS, INDEPENDENT EXECUTOR, Petitioner v . COMMISSIONER OF INTERNAL REVENUE, Respondent
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Docket No. 5578-97. Filed June 27, 2000.

Wayne R. Mathis, for petitioner.
Gerald L. Brantley, for respondent.

MEMORANDUM FINDINGS OF FACT AND OPINION

COLVIN, Judge: Respondent determined a deficiency in petitioner's estate tax of $\$ 1,801,053$.

After concessions, the sole issue for decision is whether the fair market value of 184 shares of Green Light Chemical Co., Inc., owned by Emily F. Klauss (decedent) on February 1, 1993,
was $\$ 1,810,000$, as petitioner contends; $\$ 2,713,000$, as respondent contends; or some other amount. We hold that it was $\$ 2,150,000$.

Section references are to the Internal Revenue Code as in effect when decedent died. Rule references are to the Tax Court Rules of Practice and Procedure.

FINDINGS OF FACT

Some of the facts have been stipulated and are so found.
A. Decedent

Decedent died on February 1, 1993 (the valuation date), in San Antonio, Texas. Her husband, William J. Klauss, predeceased her. Decedent's son, John G. Klauss (John Klauss), is the independent executor of decedent's estate. He lived in Helotes, Texas, when he filed the petition in this case.
B. Green Light Chemical Co., Inc.

1. Formation

William J. Klauss cofounded the Klauss-White Co. in 1946. It changed its name to the Green Light Co., Inc. (Green Light), in 1960. He ran the company until the mid-1970's, and he died in 1982.

John Klauss worked for Green Light for 38 years. He began running the company in the mid-1970's, and he was the chairman of the board on February 1, 1993. He retired in 1994.

## 2. Ownership

Green Light is a closely held corporation. Of the 460 outstanding shares of stock in Green Light, 184 shares were included in decedent's gross estate under section 2044. Decedent's children owned the remaining shares of Green Light stock when she died.

Green Light has never paid dividends.
3. Products and Operations

Green Light formulates and markets (but does not manufacture) insecticides, weed killers, fungicides, plant foods, and other products for home and garden use. Green Light sells its products to distributors, who sell them to retailers, such as Walmart and grocery and hardware stores. Green Light's primary market in 1993 was the home and garden market. It did not sell to farms, ranches, or golf courses. Green Light's sales volumes vary greatly according to weather conditions and the planting season. Its products are manufactured primarily in the fourth quarter of the calendar year, and it ships most of its products in December and January. Green Light bills its customers 90 days after shipment and receives most of its revenue in May and June.

In 1993, Green Light sold its products primarily in Texas, Oklahoma, Louisiana, New Mexico, Colorado, and Arizona. Its top five customers accounted for about 71 percent of its sales in its

1992 fiscal year. ${ }^{1}$ More than 36 percent of Green Light's sales in fiscal year 1992 were to Central Garden.
4. Green Light's Environmental Claims, Products Liability Insurance, and Risks of Litigation

The Texas Water Commission (later the Texas Natural
Resources Conservation Commission (TNRCC)) told Green Light in August 1991 that soil at its San Antonio facility was contaminated with chlordane and xylene. The TNRCC ordered Green Light to submit a corrective action plan within 30 days. Green Light denied that its property was contaminated, and had not submitted a plan as of the time of trial.

Green Light had $\$ 500,000$ of products liability insurance in 1993, with a $\$ 50,000$ deductible. It would have cost Green Light about $\$ 250,000$ more to increase its 1992 products liability insurance coverage to $\$ 2$ million, with a $\$ 1,000$ deductible. As of February 1, 1993, Green Light was a defendant in at least six products liability lawsuits resulting from the alleged misapplication of some of its products. Green Light faced potential liability of more than $\$ 100$ million in these lawsuits.
5. Sale of Green Light to Employee Stock Ownership Trust

On November 30, 1994, all of the stock of Green Light was
sold to an employee stock ownership trust created by the employees of Green Light.

## C. Decedent's Estate Tax Return

[^0]Petitioner attached to the estate's Federal estate tax return an appraisal of decedent's minority interest in Green Light prepared by Clark C. Munroe (Munroe). Munroe estimated, and petitioner reported on that return, that the fair market value of decedent's 184 shares of Green Light stock was $\$ 1,810,000$ as of February 1, 1993.
D. Notice of Deficiency

Respondent determined in the notice of deficiency that the fair market value of decedent's 184 shares of Green Light stock was $\$ 4,080,200$. Respondent now concedes that the value of decedent's stock was not more than $\$ 2,713,000$.

OPINION

The issue for decision is the fair market value of decedent's 184 shares of Green Light stock on the day decedent died, February 1, 1993.

## A. Fair Market Value

Fair market value is the price at which the property would change hands between a willing buyer and a willing seller, neither being under any compulsion to buy or to sell and both having reasonable knowledge of the relevant facts. See United States v. Cartwright, 411 U.S. 546, 551 (1973); sec. 20.20311(b), Estate Tax Regs.; sec. 25.2512-1, Gift Tax Regs. ${ }^{2}$ If

[^1]selling prices for stock in a closely held corporation are not available, then we decide its fair market value by considering factors such as the company's net worth, earning power, dividendpaying capacity, management, goodwill, and position in the industry, as well as the economic outlook in its industry and the values of publicly traded stock of comparable corporations. See Estate of Andrews v. Commissioner, 79 T.C. 938, 940 (1982); sec. 25.2512-2(f), Gift Tax Regs.

Both parties called expert witnesses to give their opinions about the value of decedent's Green Light stock on February 1, 1993. Bruce Johnson (Johnson) testified at trial for petitioner, and David Fuller (Fuller) testified for respondent. The record also contains the expert report of Munroe, who could not testify because of illness. Petitioner based the value reported in the estate tax return on Munroe's appraisal, which is almost identical to petitioner's position at trial. The opinions of the expert witnesses and the positions of the parties as to the fair market value of decedent's shares of Green Light stock are as follows:

| Petitioner's <br> return and <br> the petition | Petitioner's <br> expert Johnson | Deficiency <br> notice and <br> answer | Respondent's <br> expert Fuller |
| :--- | :---: | :---: | :---: |
| $\$ 1,810,000$ | $\$ 1,800,000$ | $\$ 4,080,200$ | $\$ 2,713,000$ |

The experts each used the income capitalization ${ }^{3}$ and market or public guideline company ${ }^{4}$ methods to estimate the value of decedent's Green Light stock. Johnson and Fuller used the same guideline companies: Scotts Co. (Scotts), American Vanguard Corp. (American Vanguard), Lesco, Inc. (Lesco), and Vigoro Corp. (Vigoro). Johnson and Fuller primarily disagree as to:

Whether to apply a small-stock premium and (2) whether to adjust the multiple for the growth rates of Green Light and the guideline companies.

## B. Stock Value Before Considering Discounts

1. The Small-Stock Premium

Johnson applied a small-stock premium of 5.2 percent in calculating the discount rate ${ }^{5}$ he used to approximate the return required by investors in the smallest quintile of the public stock market. Respondent contends that Johnson was incorrect in applying a small-stock premium. We disagree.

3 The income capitalization method is used to estimate the fair market value of income-producing property by considering the present value of the future stream of income to be produced by that property. See Estate of Bennett v. Commissioner, T.C. Memo. 1989-681, affd. 935 F.2d 1285 (4th Cir. 1991).

4 The market or public guideline company method compares the company being valued with similar, publicly traded (i.e., "guideline") companies.

5 The discount rate is the total of the risk-free rate, the equity risk premium, the small-stock premium, and the specific risk premium.

Johnson reasonably based the small-stock premium he used in his report on data from Ibbotson Associates. ${ }^{6}$ Later data from Ibbotson Associates ${ }^{7}$ show that the small-stock premium has declined since about 1983 or 1984 , but that small capitalization stocks were yielding higher average returns than large capitalization stocks in 1993.

Respondent attached to respondent's opening brief an appendix which shows that large capitalization stocks have outperformed small stocks since about 1988. We do not consider the information in the appendix because respondent provided no source for it.

Respondent relies on an article by Bajaj \& Hakala, "Valuation for Smaller Capitalization Companies", published in Financial Valuation: Businesses and Business Interests, ch. 12A (Hanan \& Sheeler ed. 1998), for the proposition that there is no small-stock premium. We find Johnson's analysis to be more persuasive.

Fuller testified that it is appropriate to use the Ibbotson Associates data from the 1978-92 period rather than from the 1926-92 period because small stocks did not consistently

[^2]outperform large stocks during the 1980's and 1990's. We give little weight to Fuller's analysis. Fuller appeared to selectively use data that favored his conclusion. He did not consistently use Ibbotson Associates data from the 1978-92
period; he relied on data from 1978-92 to support his theory that there is no small-stock premium ${ }^{8}$ but used an equity risk premium of 7.3 percent from the $1926-92$ data (rather than the equity risk premium of 10.9 percent from the 1978-92 period). If he had used data consistently, he would have derived a small-stock premium of 5.2 percent and an equity risk premium of 7.3 percent using the 1926-92 data, rather than a small-stock premium of 2.8 percent and an equity risk premium of 10.9 percent using the 1978-92 data.

We conclude that Johnson appropriately applied a small-stock premium in valuing the Green Light stock.
2. Growth Rate

Johnson derived price/earnings multiples from the guideline companies that he adjusted to account for differences between their expected growth rates and that of Green Light. He selected a 5-percent growth rate for Green Light and used growth rates for the guideline companies ranging from 14.3 to 15.5 percent.

8 The Ibbotson Associates data for 1978-92 show a 2.8percent small-stock premium. See Ibbotson Associates (1993), supra at 128.

Respondent contends that Johnson incorrectly assumed that Green Light would grow at 5 percent. Shortly before trial, Green Light's management told Johnson that it had projected that Green Light would grow at a rate of 5 to 10 percent in 1993. ${ }^{\text {( We }}$ disagree with respondent's contention that Johnson incorrectly assumed that Green Light would grow at 5 percent because Fuller also used a 5-percent growth rate for Green Light. Respondent contends that Johnson selected incorrect growth rates for the guideline companies because the sources of his data were unreliable. We disagree in part. Johnson reasonably selected growth rates for Green Light and the guideline companies other than American Vanguard using financial data relating to periods before the valuation date. See Estate of Jung v. Commissioner, 101 T.C. 412, 423-424 (1993); Estate of Newhouse v. Commissioner, 94 T.C. 193, 217 (1990).

Johnson chose a 15-percent growth rate for American Vanguard in part because its earnings grew 33 percent annually from 1988 to 1992, and its export sales grew from $\$ 800,000$ in 1990 to $\$ 4.7$ million in 1993. However, in light of the fact that the earnings of Green Light grew faster than those of the guideline companies

[^3]from 1990 to 1992 , Johnson's use of a 15 -percent growth rate for American Vanguard was too generous. We believe Johnson should have used a 5-percent growth rate for American Vanguard since that is the growth rate he used for Green Light and its earnings were growing faster than those of the guideline companies. Johnson's analysis was more persuasive than Fuller's. Fuller did not adequately consider the differences between Green Light and American Vanguard, the guideline company he considered to be the most comparable. For example, he gave little weight to the facts that: Green Light does not manufacture products; its product lines are far less diverse than those of the guideline companies; its five largest customers accounted for more than 70 percent of its sales; it sells its products regionally, not nationally; its primary market in 1993 was limited to the home and garden market and did not include agribusinesses or golf courses; and it had minimal insurance coverage for products liability and environmental claims. He did not adjust the multiples for American Vanguard for customer concentration, product mix, geographic diversification, or market segment factors. We think his failure to do so was improper given the differences between Green Light and American Vanguard.
3. Other Differences Between the Analyses of Johnson and Fuller
a. Fuller's Use of the CAPM Method

Fuller calculated his discount rate using the capital asset pricing model (CAPM). ${ }^{10}$ In contrast, Johnson used a discount rate based on the build-up method. ${ }^{11}$ We believe that Fuller should not have used the CAPM in this case. Green Light should not be valued by using the CAPM method because Johnson and Fuller agreed that it had little possibility of going public. See Estate of Maggos v. Commissioner, T.C. Memo. 2000-129; Estate of Hendrickson v. Commissioner, T.C. Memo. 1999-278; Furman v. Commissioner, T.C. Memo. 1998-157.

10 The capital asset pricing model (CAPM) is used to estimate a discount rate by adding the risk-free rate, an adjusted equity risk premium, and a specific risk or unsystematic risk premium. The company's debt-free cash-flow is then multiplied by the discount rate to estimate the total return an investor would demand compared to other investments. See Furman v. Commissioner, T.C. Memo. 1998-157.

11 Under the build-up method, an appraiser selects an interest rate based on the interest rate paid on governmental obligations and increases that rate to compensate the investor for the disadvantages of the proposed investment. See Estate of English v. Commissioner, T.C. Memo. 1985-549.

## b. Fuller's Selection of a Beta

In applying the CAPM method, Fuller chose a beta ${ }^{12}$ of .7 to estimate Green Light's systematic risk. An average amount of risk is represented by a beta of 1 . A beta of 70 percent would be correct if an investment in Green Light were 30 percent less risky than a composite investment of the Standard \& Poor's 500 Stock Composite Index (S\&P 500). We disagree with Fuller's use of a . 7 beta because Green Light was a small, regional company, had customer concentrations, faced litigation and environmental claims, had inadequate insurance, was not publicly traded, and had never paid a dividend. A beta cannot be correctly calculated for the stock in a closely held corporation; it can only be correctly estimated on the basis of the betas of comparable publicly traded companies. See Estate of Hendrickson v. Commissioner, supra; Furman v. Commissioner, supra. Fuller stated that he selected the beta based on a review of comparable companies. However, he did not identify these comparable companies or otherwise give any reason for his use of a . 7 beta. We believe Fuller's use of a . 7 beta improperly increased his estimate of the value of the Green Light stock.

12 Beta is a measure of systematic risk; that is, risk that is unavoidable and that affects the value of all assets. Beta measures the volatility of a stock's return as compared to the market as a whole. See Furman v. Commissioner, supra; Pratt et al., Valuing a Business 166 (3d ed. 1996).

## 4. Risk of Litigation and Environmental Remediation

Johnson and Fuller substantially agreed about the potential effects of products liability litigation and environmental claims on the value of Green Light stock. Johnson reduced his estimate of the value of Green Light by $\$ 921,000$ on the basis of the $\$ 252,000$ cost to Green Light of increasing its products liability insurance and John Klauss' estimate that it would have cost Green Light about $\$ 250,000$ in 1993 to pay fines and remediation costs, such as excavation, transportation, and capping costs, and lab analysis, disposal, and environmental engineer's and attorney's fees to resolve the TNRCC enforcement action. In contrast, Fuller discounted his estimate by 10 percent, which had the effect of reducing the stock value by $\$ 1,130,000$, in part because counsel for Green Light stated that its maximum liability for the litigation claims would be 10 percent. We agree with Johnson's approach because we believe he more accurately accounted for the effects on the value of Green Light of the litigation and environmental claims.

## 5. Conclusion

We conclude that Johnson's analysis was more persuasive than Fuller's, except for his use of a 15-percent growth rate for American Vanguard.

## C. Conclusion

Johnson and Fuller agree that the appropriate discount for lack of marketability is 30 percent. Taking into account the adjustment made to the growth rate of American Vanguard, we conclude that the fair market value of decedent's 184 shares of Green Light stock was $\$ 2,150,000$ on February 1, 1993.

Decision will be entered under Rule 155.


[^0]:    ${ }^{1}$ Green Light used a fiscal year ending June 30.

[^1]:    Petitioner bears the burden of proving that respondent's determination in the notice of deficiency is erroneous. See Rule $142(a) ;$ Welch v. Helvering, 290 U.S. 111, 115 (1933).

[^2]:    6 See Ibbotson Associates, Stocks, Bonds, Bills \& Inflation, 1993 Yearbook 128 (Ibbotson 1993); see also Estate of Hendrickson v. Commissioner, T.C. Memo. 1999-278 (citing id. at 125).

    7 See Ibbotson Associates, Stocks, Bonds, Bills \& Inflation, 1999 Yearbook 121 (Ibbotson 1999).

[^3]:    9 In 1999, Bruce Johnson (Johnson) interviewed Forrest Gray (Gray), the secretary and treasurer of Green Light, about the anticipated future growth rate of Green Light as of the valuation date. Gray told Johnson that, in 1993, the management of Green Light expected the company to grow at a rate of 5 to 10 percent per year.

