# Problems with Asset Allocation in Divorce Where One Spouse Owns a Business

by
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The overall mission of probate and family courts is to provide the public with a fair, equitable and, efficient forum to resolve family and probate legal matters and protect individuals in an impartial manner.[1]

When it comes to marital dissolutions, one of the important jobs of a family court is allocating the marital estate between the two spouses and for the benefit of the children. If all assets in a marital estate were simple, such as bank accounts, residential real estate or mutual funds, or other marketable securities readily traded on established exchanges such as stocks on the New York Stock Exchange, the allocation process would be fairly simple. However, the marital estates of high net worth families often contain assets such as closely held companies, contingent future payments, options, hedge or private funds, and other more esoteric assets. In addition, there is the issue of support – both spousal (if appropriate) and for the children (if any).

The problem in divorce settlements is further exacerbated by the fact that that they can be highly negotiated, and by the time they are finalized, they may have strayed far from the economics the parties had initially hoped to realize. For example, a marital estate might contain a closely held business, limited partnership interests in other businesses, real estate, mutual funds, and various physical assets (such as furniture and automobiles). In this case, there might be valuations of the closely held business, the real estate, and the limited partnership interests. If the

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1 The Massachusetts Court System, Probate and Family Court Department (Sept. 14, 2013), available at http://www.mass.gov/courts/courtsandjudges/courts/probateandfamilycourt/.

ownership stakes are particularly large, there might be more than one valuation for each of the assets.[2]

Where there are multiple appraisals on a particular item, there will often be disagreements on the correct value, and sometimes these value differences can be quite large. Judges and attorneys tend to have limited finance/accounting backgrounds, so when large differences arise, the final settlement might end up being the result of a negotiation among the parties, rather than on economics.

In this article, we will illustrate some of these issues, some of the problems that accompany them (from a financial perspective) and suggest ways of providing settlements that will meet the needs of the parties, or at a least help quantify what the resulting economics are, based on the terms negotiated and agreed to in settlement.

We start with a scenario where Husband is the sole shareholder in a small service business, with revenues of $10 million and operating profit of $740 thousand. His salary is $1.5 million. The business' expected income for the next year is shown below:

| | |
|---|---:|
| **Revenues** | **10,000,000** |
| Cost of sales | 0 |
| **Gross profit** | **10,000,000** |
| Operating expenses | |
| Depreciation and amortization | 10,000 |
| Employee salaries and benefits | 6,500,000 |
| Owner's compensation | 1,500,000 |
| Other operating expenses | 500,000 |
| Rent and utilities | 750,000 |
| Operating expenses | 9,260,000 |
| **Operating income** | **740,000** |
| Other income (expenses) | 0 |
| **Pretax income** | **740,000** |
| **Income taxes** | **0** |
| **Net income** | **740,000** |

2 Each asset class would require an appraisal by an appraiser competent in that particular appraisal discipline, e.g. real property assets would require an accredited real property appraiser and machinery and equipment assets would require an accredited machinery and technical specialties appraiser. One source for identifying multi-discipline appraisers is the American Society of Appraisers (http://www.appraisers.org). *See, e.g.* Brett Turner, Theories and Methods for Valuing Marital Assets, 25 J. AM. ACAD. MATRIM. LAW (2012).

The business has operated profitably for many years and is well recognized in the industry as providing quality services to its customers. The management team (of which Husband is one) expects long-term future profits will grow 5% annually. The business is incorporated and files corporate income tax returns as an S corporation (from inception), so there are no entity taxes imposed.[3]

An appraiser, hired jointly by both parties, has valued the business at $9,559,000. All conceptual valuation approaches were considered (asset, income and market) however the appraiser determined that the income approach was the most appropriate to use in estimating the value of the business. The appraiser used a single year capitalization of income method to derive the business value. The appraiser made one very important normalizing adjustment to income – he reduced the Husband's salary to $500 thousand, based on market rates for top management, non-owner positions in similar companies.[4]

Other assets in the marital estate include the following:

| | Value |
|---|---|
| Primary Residence | 1,500,000 |
| Motor Vehicles | 75,000 |
| Checking account | 250,000 |
| Savings/Money Markets | 100,000 |
| Marketable Securities/Mutual Funds | 1,500,000 |
| Home Furnishings | 100,000 |
| **Total** | **3,525,000** |

This results in a total market value of $13,084,000 for the marital estate. As in many cases, the value of the closely held

[3] Corporate income taxes are included in determining the value of the business, and are discussed later in this article.

[4] The business value of $9,559,000 (rounded) was arrived at by increasing income $1,000,000 to normalize market value compensation. Pretax income of $1,740,000 was reduced by corporate income taxes of $683,472, decreased by capital expenditures in excess of depreciation of $1,000, and increased by a dividend tax savings of $253,327 to arrive at net cash flow of $1,308,855. This net cash flow figure was divided by a 15% capitalization rate (20% discount rate less 5% long-term growth rate) and then multiplied by a mid-year factor of 1.09545. A discussion about these additional factors is beyond the scope of this article.

business owned by the Husband represents a significant (approximately 73%) amount of the marital estate.

The goal of the parties is to divide the marital estate equally between the Husband and Wife; meaning that Husband is to receive 50% of the value of the marital estate and Wife is to receive 50% of the value of the estate. In addition to this, Wife is to receive 50% of the value of Husband's salary over the next 20 years as support.[5] (Please note that we are not considering child support separate in our analysis.)

## Situation 1

The parties accept the appraisal and the underlying assumptions without modification. The parties divide the motor vehicles equally (that is, each spouse keeps his/her own car of equal value); the checking account is divided equally and Wife receives 100% of each of the primary residence, savings/money markets, marketable securities/mutual funds and home furnishings. Wife receives one-third of the value of the business; but this is in the form of a 10-year 8% note, paying principal and interest monthly – similar to the way a mortgage payment works.[6] As a result, Wife will receive almost $39 thousand per month in principal and interest payments on the note for the next 10 years.[7]

Based on this division of property, Husband and Wife each receive 50% of the value of the assets in the marital estate:

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5 An allocation of 50% is for illustration purposes only. We realize state guidelines vary in their determination of alimony.

6 The 8% rate is what the Company would have to pay its bank to borrow on a long-term basis.

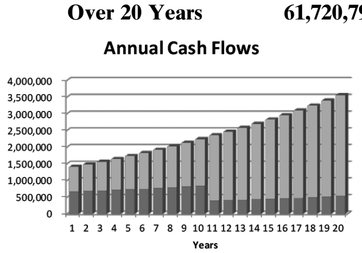
7 The interest received by Wife is taxable income; however the interest paid by Husband is considered personal interest and is not deductible. We recommend this tax issue be reviewed by qualified tax advisors in advance of final settlement terms.

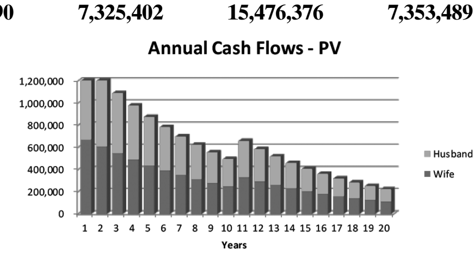
| | Value | Husband | Wife |
|---|---:|---:|---:|
| Primary Residence | 1,500,000 | 0 | 1,500,000 |
| Motor Vehicles | 75,000 | 37,500 | 37,500 |
| Checking account | 250,000 | 125,000 | 125,000 |
| Savings/Money Markets | 100,000 | 0 | 100,000 |
| Marketable Securities/Mutual Funds | 1,500,000 | 0 | 1,500,000 |
| Home Furnishings | 100,000 | 0 | 100,000 |
| Business Value | 9,559,000 | 6,372,667 | 3,186,333 |
| **Totals** | **13,084,000** | **6,535,167** | **6,548,833** |

This is also confirmed if one considers the cash flows the parties could expect to receive over the next twenty years, as shown in Exhibit 1 below.

# Exhibit 1

| | Husband | | Wife | |
|---|---:|---:|---:|---:|
| **Year** | **Cash Flows** | **Present Values** | **Cash Flows** | **Present Values** |
| **1** | 735,092 | 671,044 | 669,880 | 644,592 |
| **2** | 794,742 | 604,581 | 684,579 | 609,941 |
| **3** | 857,374 | 543,522 | 700,250 | 577,689 |
| **4** | 923,138 | 487,677 | 716,963 | 547,663 |
| **5** | 992,191 | 436,797 | 734,789 | 519,704 |
| **6** | 1,064,696 | 390,597 | 753,809 | 493,663 |
| **7** | 1,140,826 | 348,772 | 774,107 | 469,404 |
| **8** | 1,220,763 | 311,008 | 795,773 | 446,798 |
| **9** | 1,304,696 | 276,993 | 818,906 | 425,728 |
| **10** | 1,392,826 | 246,420 | 843,610 | 406,084 |
| **11** | 1,949,271 | 328,968 | 399,134 | 177,897 |
| **12** | 2,046,435 | 291,489 | 411,351 | 169,762 |
| **13** | 2,148,457 | 258,277 | 424,178 | 162,088 |
| **14** | 2,255,579 | 228,847 | 437,647 | 154,847 |
| **15** | 2,368,058 | 202,769 | 451,790 | 148,010 |
| **16** | 2,486,161 | 179,661 | 466,639 | 141,551 |
| **17** | 2,610,169 | 159,185 | 482,231 | 135,445 |
| **18** | 2,740,378 | 141,042 | 498,603 | 129,670 |
| **19** | 2,877,097 | 124,966 | 515,793 | 124,204 |
| **20** | 3,020,652 | 110,722 | 533,843 | 119,028 |
| **End** | 26,792,189 | 982,066 | 3,362,500 | 749,720 |
| **Over 20 Years** | **61,720,790** | **7,325,402** | **15,476,376** | **7,353,489** |



In this illustration, we have assumed Husband's salary (again, this is the market compensation, not the actual compensation) increases at the same rate of the Company's growth – 5%/year. The rate of return on all assets besides the Company is 8%.[8] Husband and Wife each have a 40% combined state and Federal income tax rate.

In this illustration it is important to note that while Husband's cash flows are higher in every year than Wife's, the *risk* of Husband realizing his cash flows is also much higher, since most are from Company distributions. In the valuation, this risk is included by using a 20% expected rate of return (also known as the "discount rate") on Company cash flows while the expected rates of return on the note and the other assets are only 8%.[9] A consideration of the present value of these cash flows, a measure which incorporates these risks, indicates that over a 20-year period, Husband and Wife are receiving approximately equal cash flows (on a present value basis).[10][11]

A major mistake, which is often made in divorce negotiations, is to focus on equalizing the cash flows each party receives, without regard to their sources and their relative risks. In this case, Wife's assets are in relatively "safe" real estate, bank accounts and market-traded securities and mutual funds. While one could argue whether 8% is the right discount rate to use on these assets, it is fairly certain that the risks related to these assets are less than those of a typical small, closely-held business.

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8 This includes the primary residence. Even though the wife plans to stay in the house, it will likely appreciate in value; so this 8% represents this annual value appreciation.

9 We have assumed the discount rate of Husband's salary is the same as the Company's borrowing rate, since salary usually has the similar payment priority (risk) as a company's borrowings. This is a much lower risk than a company's dividends or distributions, which are usually made after all other obligations are met. In other words, distributions have a much higher discount rate than salaries and borrowings.

10 This is not surprising since the value of an asset is equal to the expected cash flows discounted to present value using an appropriate discount rate – one which incorporates both the time value of money and the risk of the asset.

11 The "end" in the above exhibit represents the ending values of the business and the other assets 20 years from now, both on a nominal and a present value basis.

## Situation 2

The parties accept the appraisal value and most of the underlying assumptions. The only issue is Husband's salary for spousal support purposes. Wife is to receive half of Husband's salary for the next twenty years; but his current salary of $1.5 million is to be used, rather than the $500 on which the value of the Company is based. The division of the value of the Company and the other assets is the same as that given in Situation 1.

This is a common departure from a carefully constructed valuation analysis, and is known as the classic "double dip;" that is, if the parties agree to this, Wife is getting both her share of the Company explicitly (through the note payments) and through Husband's higher salary. The salary used to determine the business value was only $500 thousand; so, the same cash flows are being used to pay both Wife's portion of Husband's salary as well as the note.[12] This is very clear when considering the cash flows, in Exhibit 2, which show something less than equitable. Husband is only receiving 39% of the present value of the cash flows over the twenty years; while Wife is realizing the other 61%.[13]

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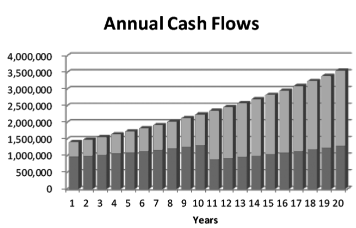
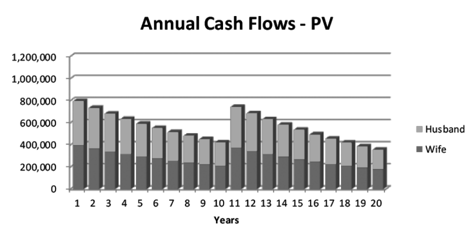
12 Wife continues to receive the almost $39 thousand per month in note payments; but she is also getting $62,500/month in Husband's salary, compared to $20,833 in Situation 1. The difference of almost $42 thousand per month is the amount of the double dip.

13 If the parties wanted to use the $1.5 million salary, then the value of the business would have been much lower, at $4.1 million (versus $9.6 million above). In addition, the distribution of the assets would be much different, with Husband getting 50% of the checking account and the securities/mutual funds along with 100% of the savings/money markets.

# Exhibit 2

| | Husband | | Wife | |
|---|---|---|---|---|
| | Cash | Present | Cash | Present |
| **Year** | **Flows** | **Values** | **Flows** | **Values** |
| **1** | 435,092 | 397,183 | 969,880 | 933,267 |
| **2** | 479,742 | 366,543 | 999,579 | 890,598 |
| **3** | 526,624 | 339,862 | 1,031,000 | 850,549 |
| **4** | 575,851 | 316,007 | 1,064,250 | 812,944 |
| **5** | 627,539 | 294,447 | 1,099,441 | 777,616 |
| **6** | 681,811 | 274,790 | 1,136,694 | 744,411 |
| **7** | 738,797 | 256,748 | 1,176,135 | 713,186 |
| **8** | 798,632 | 240,095 | 1,217,903 | 683,809 |
| **9** | 861,460 | 224,659 | 1,262,142 | 656,155 |
| **10** | 927,428 | 210,303 | 1,309,009 | 630,111 |
| **11** | 1,460,603 | 371,137 | 887,803 | 395,701 |
| **12** | 1,533,333 | 341,918 | 924,453 | 381,515 |
| **13** | 1,609,700 | 314,997 | 962,935 | 367,960 |
| **14** | 1,689,885 | 290,194 | 1,003,342 | 355,000 |
| **15** | 1,774,079 | 267,344 | 1,045,769 | 342,603 |
| **16** | 1,862,483 | 246,292 | 1,090,318 | 330,739 |
| **17** | 1,955,307 | 226,897 | 1,137,094 | 319,377 |
| **18** | 2,052,772 | 209,029 | 1,186,208 | 308,493 |
| **19** | 2,155,111 | 192,568 | 1,237,779 | 298,060 |
| **20** | 2,262,567 | 177,403 | 1,291,928 | 288,055 |
| **End** | 26,792,189 | 2,100,716 | 3,362,500 | 749,720 |
| **Over 20 Years** | **51,801,004** | **7,659,133** | **25,396,162** | **11,829,868** |



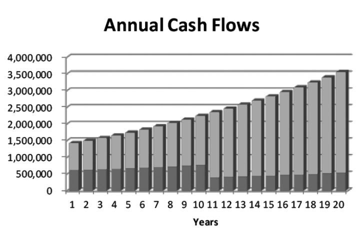

What may compound this situation is where there is more than one appraisal of the Company and the values are quite different from one another. The differences could be due to a variety of factors: discount rates, expected growth rates, owners' compensation, etc. Here, there is a real possibility that both Husband's salary and the value of the business could be subject to negotiation. Because of the high probability that the final settlement will not reflect the economics the parties had hoped to achieve, it is important that a careful long-term cash flow analysis be performed to make sure that the financial objectives are realized.

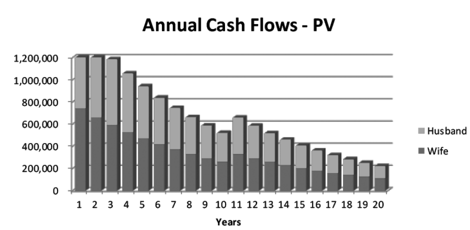
For example, if we assume the same expected income statement shown earlier; but the parties have stipulated to a $500 thousand salary for purposes of support and that the value is stipulated to be $8 million, which is the negotiated value based on the two appraisals. The allocation of the Company's value and other assets will be as shown in Situation 1. The result is a clear advantage for Husband.

The distributions he receives from the Company are no different than before; yet his note payments are much less. Rather than realizing monthly note payments of almost $39 thousand as before, Wife will only get $32 thousand per month. There are no other changes in the cash flows; so, clearly a transfer of assets from Wife to Husband. The cash flow analysis is shown in Exhibit 2a. Since Wife is receiving most of the other assets, the only way to rectify this situation, returning to a 50/50 split of assets is to give Wife a larger share of the business (about 37%). It seems counterintuitive to give the Wife a larger share of the Company, if the Husband's main asset is the Company and its value has been decreased. The problem is that the value of $8 million is completely divorced from the Company's cash flows, so relying on the negotiated value would result in an inequitable settlement. The value of an asset is based on its cash flows and not the other way around.

# Exhibit 2a

| | Husband | | Wife | |
|---|---|---|---|---|
| **Year** | **Cash Flows** | **Present Values** | **Cash Flows** | **Present Values** |
| **1** | 810,752 | 740,112 | 610,338 | 587,298 |
| **2** | 870,402 | 662,137 | 623,863 | 555,845 |
| **3** | 933,034 | 591,486 | 638,263 | 526,551 |
| **4** | 998,798 | 527,647 | 653,598 | 499,261 |
| **5** | 1,067,851 | 470,105 | 669,934 | 473,832 |
| **6** | 1,140,356 | 418,354 | 687,338 | 450,132 |
| **7** | 1,216,486 | 371,902 | 705,886 | 428,036 |
| **8** | 1,296,423 | 330,284 | 725,658 | 407,431 |
| **9** | 1,380,356 | 293,056 | 746,739 | 388,210 |
| **10** | 1,468,486 | 259,805 | 769,222 | 370,276 |
| **11** | 1,949,271 | 328,968 | 399,134 | 177,897 |
| **12** | 2,046,435 | 291,489 | 411,351 | 169,762 |
| **13** | 2,148,457 | 258,277 | 424,178 | 162,088 |
| **14** | 2,255,579 | 228,847 | 437,647 | 154,847 |
| **15** | 2,368,058 | 202,769 | 451,790 | 148,010 |
| **16** | 2,486,161 | 179,661 | 466,639 | 141,551 |
| **17** | 2,610,169 | 159,185 | 482,231 | 135,445 |
| **18** | 2,740,378 | 141,042 | 498,603 | 129,670 |
| **19** | 2,877,097 | 124,966 | 515,793 | 124,204 |
| **20** | 3,020,652 | 110,722 | 533,843 | 119,028 |
| **End** | 26,792,189 | 982,066 | 3,362,500 | 749,720 |
| **Over 20 Years** | **62,477,389** | **7,672,880** | **14,814,550** | **6,899,096** |



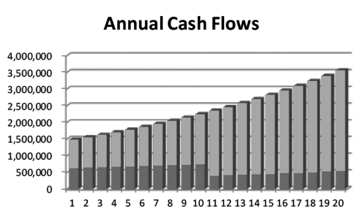

# Situation 3

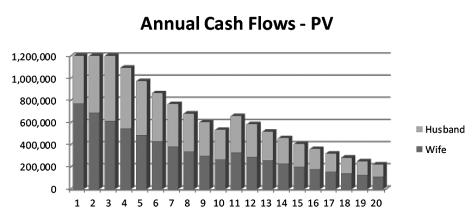
The parties accept the valuation and the assets are to be divided as given in Situation 1. The only difference is that Husband's attorney believes that the 8% note rate is much too high; it should be closer to 2%. Of course, this is a very low rate, since it is lower than the borrowing rate of the U.S. Government.

This seemingly small change has a big change on the distribution of assets. Rather than the Wife receiving a note for a one-third interest in the business, with a value of $3.186 million, she is getting an asset worth only $2.416 million ($770 thousand less), with a monthly payment of $29 thousand as opposed to $39 thousand. This can also be seen in the cash flows, in Exhibit 3, where Wife is receiving less. Short of making the interest rate on the note an appropriate market rate, the situation could be remedied by giving Wife a larger share of the business and/or allocating more of the other assets to her.

## Exhibit 3

| | Husband | | Wife | |
|---|---|---|---|---|
| Year | Cash Flows | Present Values | Cash Flows | Present Values |
| **1** | 847,177 | 773,364 | 632,194 | 608,329 |
| **2** | 906,827 | 689,847 | 642,042 | 572,042 |
| **3** | 969,460 | 614,578 | 652,312 | 538,140 |
| **4** | 1,035,224 | 546,890 | 663,023 | 506,461 |
| **5** | 1,104,276 | 486,141 | 674,198 | 476,849 |
| **6** | 1,176,781 | 431,717 | 685,857 | 449,162 |
| **7** | 1,252,911 | 383,038 | 698,023 | 423,268 |
| **8** | 1,332,848 | 339,564 | 710,721 | 399,044 |
| **9** | 1,416,782 | 300,789 | 723,974 | 376,375 |
| **10** | 1,504,912 | 266,250 | 737,809 | 355,155 |
| **11** | 1,949,271 | 328,968 | 399,134 | 177,897 |
| **12** | 2,046,435 | 291,489 | 411,351 | 169,762 |
| **13** | 2,148,457 | 258,277 | 424,178 | 162,088 |
| **14** | 2,255,579 | 228,847 | 437,647 | 154,847 |
| **15** | 2,368,058 | 202,769 | 451,790 | 148,010 |
| **16** | 2,486,161 | 179,661 | 466,639 | 141,551 |
| **17** | 2,610,169 | 159,185 | 482,231 | 135,445 |
| **18** | 2,740,378 | 141,042 | 498,603 | 129,670 |
| **19** | 2,877,097 | 124,966 | 515,793 | 124,204 |
| **20** | 3,020,652 | 110,722 | 533,843 | 119,028 |
| **End** | 26,792,189 | 982,066 | 3,362,500 | 749,720 |
| **Over 20 Years** | **62,841,645** | **7,840,169** | **14,803,862** | **6,917,048** |




## Conclusion

We have examined several typical situations with respect to divorce negotiations. One common theme is the possibility that a seemingly small change in some of the terms of the settlement could significantly change the economics of the outcome. It is important that any negotiated changes be reexamined, using a careful cash flow analysis to determine whether the goals of the parties are being met by the settlement.