

# Cash Equivalency

## What is cash equivalency?

An appraisal technique by which the price of comparable properties selling at different financing terms are adjusted to find market value. The theory is that terms less advantageous to the seller will cause a higher sale price; cash being most advantageous to the seller.

## What is cash equivalent in real estate?

The conversion of the price of property that sold with either favorable or unfavorable financing into the price the property would have sold for had the seller accepted all cash in the transaction.

## How to calculate cash equivalent sale price?

Find the present value of the principal balance at the market rate. Add the PV of the payments to the PV of the principal balance and to the cash down payment. This equals the cash equivalent value or adjusted sale price.

In a stable economy with low inflation and correspondingly low fixed rate financing, property transactions are usually composed of all cash to the seller by a combination of a cash down payment and the remainder funded by a third-party lender. There are still a few sales that are composed of some non-cash elements. Acceptance of an item of real or personal property or seller carried financing are typical forms of non-cash consideration. Since economic value is stated in terms of cash, sales that included non-cash components must be converted to their cash equivalent before they can be useful indicators of value.

Section 110 of the Revenue and Taxation Code expresses “full cash value” or “fair market value” in terms of “Cash or its equivalent.” It further states that fair market value “shall be the purchase price paid in the transaction unless it is established by a preponderance of the evidence that the real property would not have transferred for that purchase price...” **In order to comply with property tax law, property tax appraisers must adjust all sales to their cash equivalent in order to decide if the cash adjusted price is to be accepted as “market value”.** In addition, sales can't be adjusted for time or comparability until a cash equivalent is calculated.

The appraiser's objective in cash equivalent analysis is to express the consideration given for the property in terms of cash as of the date of the transaction. They are concerned with the consideration paid for the property under appraisal; consideration for any other property the seller may sell or for the various other services that are provided to both the buyer and seller at the time of the sale is of no consequence.

The appraiser should consider several factors when adjusting a nominal selling price to its cash equivalent, including those listed below:

1. Identify any noncash components of the consideration for the property. These may include new or assumed notes, stocks, bonds, and personal and real property.

2. Ascertain the face value of any new loan or the balance owing on any assumed loan, look up the market price of any stocks or bonds, and ascertain the value of any tangible property as of the date of the sale.
3. Determine the terms of the notes or contract of sale, the rate of interest, the amount and timing of payments, and whether the loan is fully amortized by periodic payments or whether a balloon payment is required.
4. Determine the terms and conditions of the typical loan available for the type of property in question as of the date of the transfer; the market rate of interest; the ratio of loan to value, the amortization method, timing of payments; and the period of repayment. In the case of newly originated financing, it should be determined whether or not the seller paid any points.
5. Adjust, when necessary, the face value of the newly drawn note, contract, or remaining balance of an assumed loan to its cash equivalent. This can be a simple matter of deducting seller's points from a new loan; or it may be a more complicated calculation involving the present worth of future payments.
6. Add the cash value of the noncash components of the consideration to all cash payments (cash down and prepaid interest). The addition of these two components equals the cash selling price of the sold property. The appraiser then can make any other necessary adjustments to the cash selling price of the sold property.

Elements of Consideration	Given By	Received By
Cash (All or Part)	Buyer	Seller
Cash (All or Part)	Third-Party Lenders	Seller
Promise to Assume Existing Loan	Buyer	Seller
A Promissory Note or Contract (All or Part)	Buyer	Seller
Tangible Property (Boat, Vacant Lot, or Other)	Buyer	Seller
Intangible Property (Other Than a Note)	Buyer	Seller

**Non-cash Components in Real Estate Transactions.** Only non-cash items a **seller accepts** as consideration are appropriate for adjustment. **For example, a 2<sup>nd</sup> trust deed securing a \$20,000 note at 3% interest, payable in monthly installments and financed by a seller would require adjustment, but this same note financed by a third party to the transaction would not.** In the first example, instead of receiving cash, the seller received a promise from the buyer to repay the \$20,000 plus interest in future cash installments. In the second, the seller received all cash from the loan proceeds funded by the third party.

The following items of non-cash consideration need to be identified by the appraiser and adjusted to its cash equivalent, if warranted:

1. Promissory notes carried by the seller.
2. Contracts of sale.
3. Points paid by seller in order for the buyer to obtain financing.
4. Real or personal property taken in trade.
5. Promissory notes assumed by the buyer.

### **Conversion of Non-cash Items into Cash Equivalence.**

1. **Promissory Notes Carried by Seller.** A promissory note taken back by a seller needs to be examined to identify terms of repayment of the principal and interest. If the note has a market interest rate, the face value and cash value are the same. If not, the note is worth something other than its face amount. Its cash value is computed by discounting the periodic payments by an appropriate factor or factors (from AH 505) at the market rate.

For example, a fully amortized loan with a beginning principal balance of \$10,000, payable monthly at an annual rate of 9% for 5 years is worth less than its face value if the market rate is more than the note rate. To adjust the note, calculate the monthly payment and then multiply the payment by the corresponding factor for the term and frequency of payment at the market interest rate. Assuming a market rate of 12%, the entire discounting processes is as follows:

- 1) Monthly Payment -  $\$10,000 \times 0.020758$  (Col. 6 – PR @ 9%, 5 yrs.) = **\$207.58**
- 2) Discounted Payments -  $\$207.58 \times 44.955$  (Col. 5 – PW\$1/P @ 12%, 5 yrs.) = **\$9,332.**

The cash equivalent value of the note with a face value of \$10,000 discounted at a market yield of 12% is then \$9,332.

A market may exist where investors buy and sell trust deeds like other commodities. Prices paid depend upon the property's market value, the notes position (1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup> etc), its face amount, duration, interest rate, and other factors such as the borrower's credit standing. When good data can be obtained from such markets, reliable cash equivalent adjustments can be made.

A hypothetical example might be a market that discounts second trust deeds at 30% if face value for notes with 5 to 8-year terms, at interest rates between 12% - 14% and loan-to-value ratios of no more than 20 percent. The cash equivalent value of a \$10,000 second trust deed (10% of sale price) at say 13% interest with a 6-year amortization period on a purchase price of \$100,000 would be: **\$7,000** ( $\$10,000 \times 0.70 = \$7,000$ ).

2. **Contracts of Sale.** This type of sales transaction usually involves a small down payment with the seller carrying a promissory note. In addition, the seller keeps title to the property which is conveyed to the buyer when: (1) the purchase price is fully paid or (2) an agreed upon portion of the sale price is paid. When title passes, the contract of sale converts to a deed of trust arrangement. Cash equivalent adjustments for contracts of sale are made in exactly the same fashion as the other seller held financing.

3. **Seller Points.** Probably the simplest kind of cash equivalent adjustment is prepaid interest (points) paid by the seller to reduce the interest rate on the buyer's purchase loan and is most frequently associated with the FHA or VA. A point is equal to 1% of the loan amount, so payment of 4 points on a loan of \$95,000 would be \$3,800. From the perspective of the lender, the yield on a loan is increased above the nominal interest rate because the amount funded is less than the face amount of the loan.
4. **Loan Assumptions.** An assumed loan with a fixed interest rate should be adjusted for cash equivalence unless the interest rate on the loan is equal to the market rate for similar loans. The cash equivalence of an assumed loan at non-market interest will vary from the loan with an interest rate lower than market may require discounting if the buyer paid a price in excess of market value to obtain a lower interest rate. The higher price is in effect the value of real property and the value of the seller's right to pass on the benefits of undermarket financing. The seller's right to offer below market terms by loan assumption is considered intangible personal property. Since this property right is not assessable, its value must be estimated and deducted from the nominal sales price.

For example, the cash equivalent value of an assumed loan of \$40,000, with a ten-year remaining term, payable monthly at a 6% interest rate, would be worth less than the remaining balance if the market rate were 8% at the date of assumption.

There are two steps in the discounting process for any level payment, fully amortized loan. First, the payments on the loan must be calculated using the factor from Column 6, periodic repayment. Once the payment has been determined, it can be discounted at the market interest rate using the factor from Column 5, present worth of \$1 per period (PW\$1/P). The result of this calculation is the cash equivalent of the assumed loan.

For the example above, the cash equivalent was calculated as:

1. Calculate the payment.

$$\$40,000 \times 0.011102 = \$444.08/\text{month (Col. 6, PR, monthly table @ 6\%, 10 years)}$$

2. Discount at market rate.

$$\$444.08 \times 82.421481 = \$36,601.73 \text{ (Col. 5, PW\$1, monthly table @ 8\%, 10 years).}$$

Rounded to: \$36,600.

The cash equivalent value of the loan in the example is then \$36,600, which is less than the face amount of \$40,000. It is the cash equivalent value that is added to the other cash components to arrive at the cash equivalent sales price.