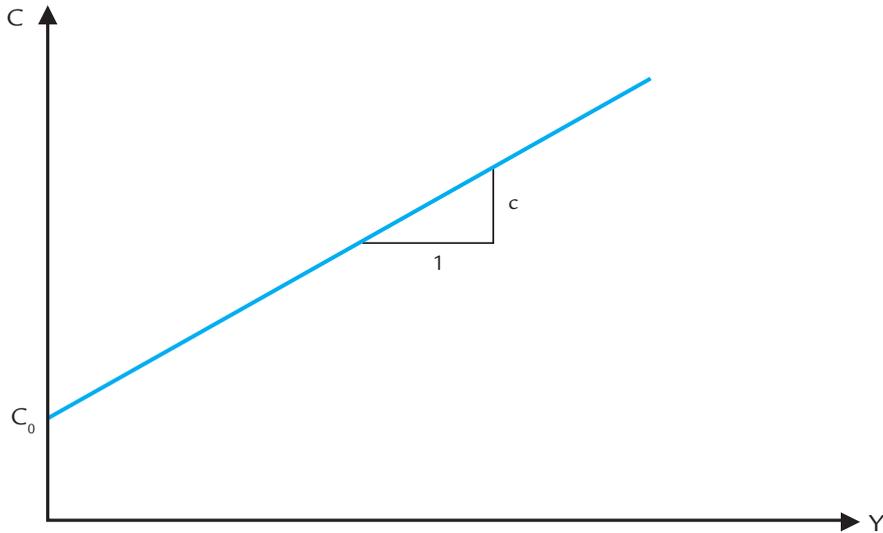Figure 14.1    *Household consumption in relation to income*



***The average propensity to consume and the average propensity to save***
The average propensity to consume shows consumption relative to income. This can be written as C/Y.

Figure 14.1 shows a minimum consumption $C_0$, which is independent of income. The average propensity to consume is therefore highest among the lowest incomes, and decreases as income rises. This fits with the evidence that the higher a person's income, the less of it is devoted to consumption.

Similarly, a larger share of income goes into savings. The average propensity to save S/Y therefore increases with higher income. The sum of the average propensity to consume and the average propensity to save is also 1.

### 14.1.2  Private investments and equilibrium

This section looks at private investments, i.e. company investments in machinery, property, etc. and household investments in housing, and considers them exogenous, i.e. determined outside of the model, a position softened later in the book.

Adding consumer spending to Equation 14.5 gives equilibrium in this simple model at:

(14.8) $Y = C_0 + c \cdot Y + I$

### Example

An example will illustrate this equilibrium and show how the model deals with national income Y:

Assume that consumer spending depends on minimum spending of DKK 80 billion and that the marginal propensity to consume is 0.8, i.e. the households spend 80% of an increase in income and save the remaining 20%. Consumer spending can, therefore, be written (in DKK billion) as:

$C = \textbf{80} + 0.8 \cdot Y$

Assume now that private investments amount to DKK 120 billion. The model now has two exogenous factors, i.e. minimum consumer spending and private investments, a technical coefficient, i.e. the marginal propensity to consume, and two endogenous factors, i.e. private consumption and national income.

Aggregate demand AD (in DKK billion) is, therefore:

$AD = 80 + 0.8 \cdot Y + 120$

It has already been established that equilibrium has been reached when national income corresponds with aggregate demand Y – which means that equilibrium (still in DKK billion) is now:

$Y = 80 + 0.8 \cdot Y + 120$

The unknown factor in this equation is Y, which can be calculated step by step. Start with:

$Y - 0.8\,Y = 80 + 120$

Place Y outside the parenthesis and: