Regnskapsmessig verdsettelse - før/etter skatt

Finn Kinserdal

Partner Ernst & Young

Førsteammanuensis NHH

ERNST & YOUNG

Quality In Everything We Do

Verdsettelse i regnskap

Her:

Når man må beregne 'fair value' ved å foreta en verdsettelse basert på diskonterte kontantstrømmer:

► IAS 36: Impairment (bla av IAS 16 og IAS 38 aktiva)
► IFRS 3: Oppkjøp/PPA

Men også diskontering i:
► IFRS 2 Aksjeb. avlønn, IFRS 4 Forsikr, IAS 17 Leasing, IAS 19 Pensjon, IAS 39 Fin.instr, IAS 40 Inv.eiend, IAS 41 Biologiske eiend.

Praktisk kalkulasjon av verdi

	2011	2012	2013	Contin.
Inntekt/innbet				
- Kostnad/utbet				
= Kontantstrøm				

Dividert med $\quad\quad (1+WAAC) \quad\quad (1+WAAC)^2 \quad (1+WAAC)^3 \quad \dfrac{(WACC-g)}{(1+WAAC)^3}$

$NPV = \sum\limits_{i=1}^{n}$ ⬭ + ⬭ + ⬭ + ⬭

ERNST & YOUNG
Quality In Everything We Do

Problem: Eiendeler vises brutto 'før skatt' i balansen

Brutto

Maskin

Utsatt skatt

Netto verdi

Derfor 'logisk' at før skatt DCF-test

IAS 36.55:

' The discount rate shall be pre-tax rate'

IAS 36.51:

'because the discount rate is determined on a pre-tax basis, future cash flows are also estimated on a pre-tax basis.'

Marked

Betaler skatt sin selv

Etter skatt

Betaler skatt sin selv
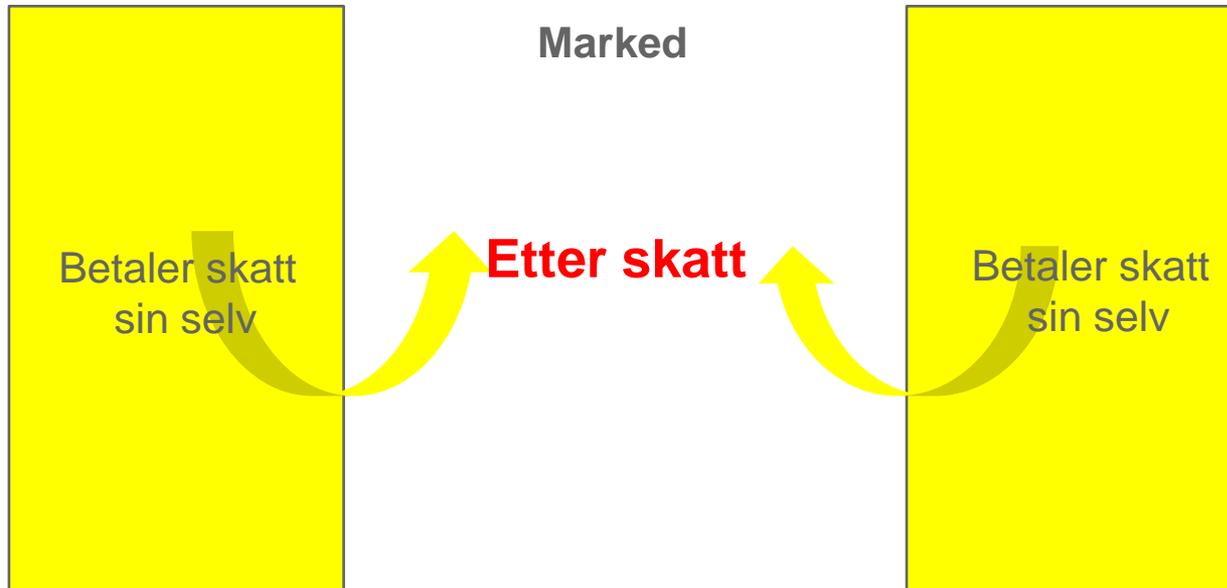
IAS 36.56 og 57:

'Rate is estimated from the rate in current market transactions'

???????

ERNST & YOUNG
Quality In Everything We Do

Eiendeler vises brutto 'før skatt' i balansen; NEI- maskinen er etter skatt m.verdi !!

Kjøpt i og selges i *etter* skatt marked

Maskin

Utsatt skatt
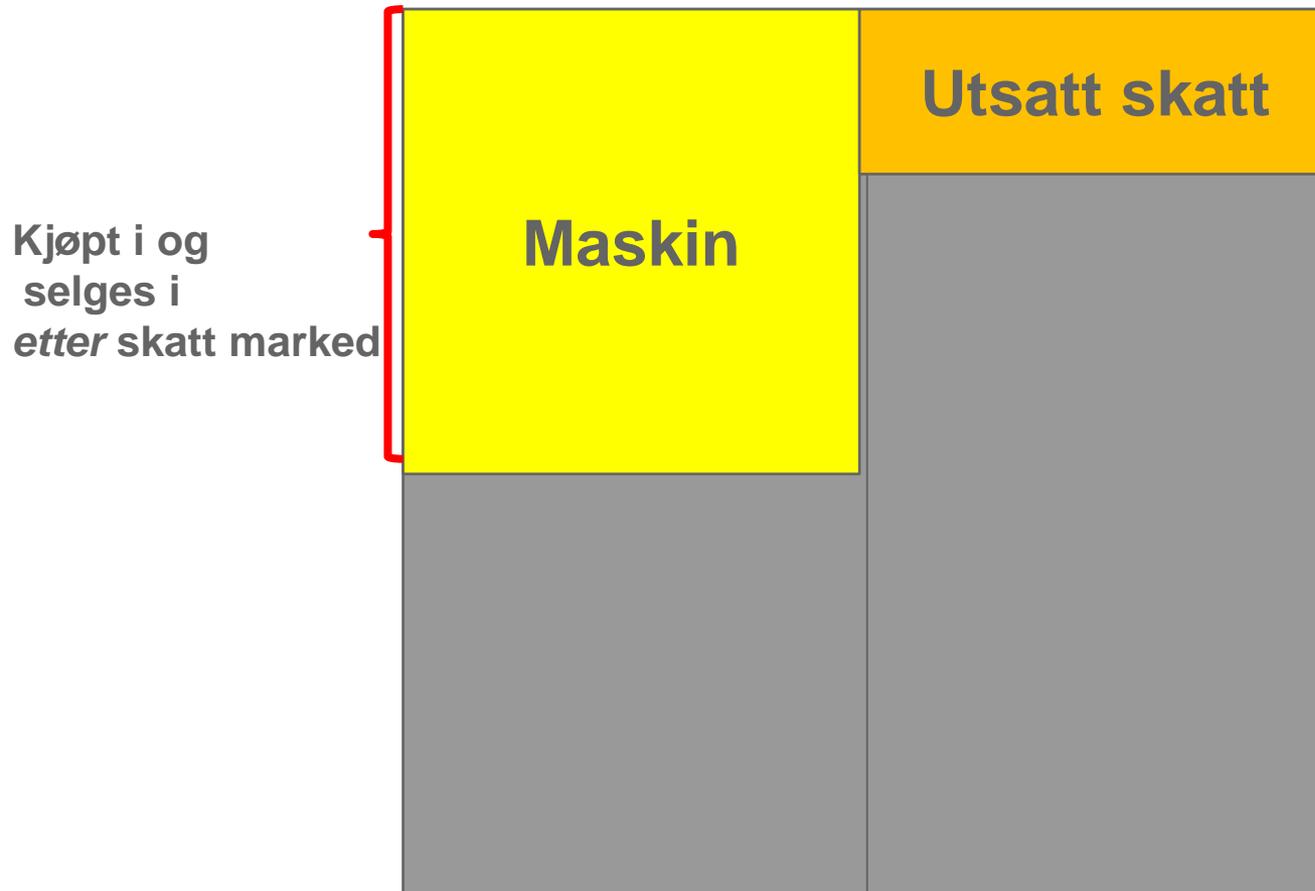
IAS 36 BC begrunnelsen for pre-tax..

BCZ84

'In principle, value in use should include the present value of the future tax cash flows..'

 ……[(mao post-tax)]

'Nevertheless it may be burdensome to estimate the effect of that component'.

This is because need to be determined by an iterative and possibly complex computation so that value in use itself reflects a tax base equal to that value in use.

For these reasons, IASC decided to require ....a pre-tax discount rate.'

….post-tax burdensome….

….BUT pre-tax impossible….

ERNST & YOUNG
Quality In Everything We Do

IAS 36 BC begrunnelsen for pre-tax..

Comments by field visit participants and respondents to the December 2002 ED

► 'However, some field visit participants and respondents to the Exposure Draft stated that using pre-tax cash flows and pre-tax discount rates would be a significant implementation issue for entities.

► This is because typically an entity's accounting and strategic decision-making systems are fully integrated and use post-tax cash flows and post-tax discount rates to arrive at present value measures.

……The board decided not to deal with this issue now…'

ERNST & YOUNG
Quality In Everything We Do

IAS 36, BCZ85
'The pre-tax discount rate is not always the post-tax discount rate grossed up by a standard rate of tax'

Etter skatt 10%, skatt er 28%

-> før skatt 10%/(1-0,28%)= 13,9 %

Før skatt: CF=   10 + 10 + 10 , NPV (13,9%) = 23,2

Etter skatt: CF=   7.2+7,2+7,2 , NPV (10%)   = 17,9

Kun:

Om evig kontantstrøm med null vekst..

ERNST & YOUNG
Quality In Everything We Do

Konklusjon:
-Teori og praksis sier at etter-skatt skatt brukes

- IAS 36: FØR-skatt…

-> Regner ut etter-skatt; oversetter til før-skatt+ oppgir før/etter skatt% i notene

ERNST & YOUNG
Quality In Everything We Do

SEC brev ad pre-/post-tax

We note from the disclosure that your estimated future cash flows are discounted using a real **post-tax** discount rate based on your post-tax weighted average cost of capital. Given the guidance provided in IAS 36 paragraph 55 that the discount rate shall be a **pre-tax rate**, please explain to us the specific reasons you believe use of a post-tax rate is appropriate, and in compliance with the accounting guidance provided in IAS 36.

$$\frac{\text{Operating Cashflow (1-effective tax)}}{WACC = \%(r_f + CreditRisk)(1-t) + \%(r_f + MP\beta)}$$
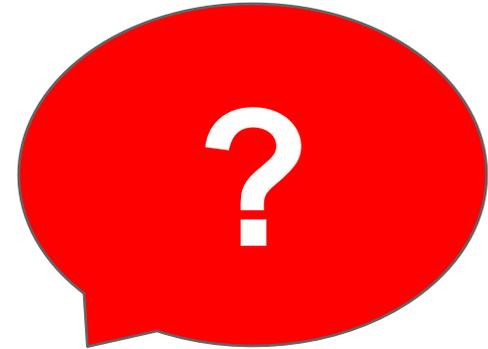
Operating Cashflow (1-effective tax)

$$WACC = \%(r_f + CreditRisk)(1-t) + \%(r_f + MP\beta)$$
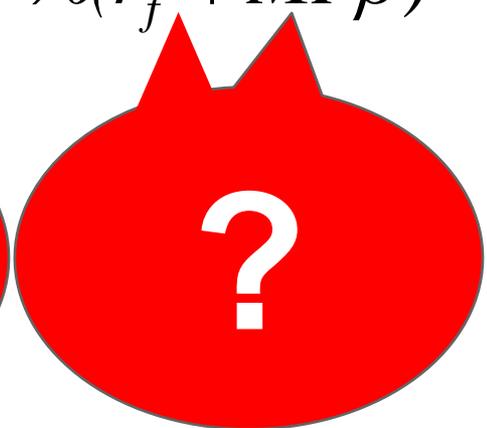
Beregn eksakt eller
NCS si 70%
Norge si 25 %

Effektivt gjeldsfradrag Norge ~ 28%

0 justering

Nåverdi etter skatt

	2011	2012	2013	Contin.
Inntekt				
- Kostnad				
= Kontantstrøm				
- SKATT ???				
= Kontanstrøm etter skatt				

Dividert med $(1+WAAC)$ $(1+WAAC)^2$ $(1+WAAC)^3$ $\dfrac{(r-g)}{(1+WAAC)^3}$

$NPV = \sum\limits_{i=1}^{n}$

ETTER SKATT

ERNST & YOUNG

Quality In Everything We Do

Er håndtert separat:

Utsatt skatt

IAS 12
Udiskontert!

IAS 36

Maskin

-> Skattv = BV

ERNST & YOUNG
Quality In Everything We Do

Beregning av skatt- og 'iterativ prosess'

|	2011	2012	2013	Contin.
Kontantstrøm før skatt	120	…	…	
(**BV= Skatteverdi** ~~100~~)**80**				
Skatteavskrivning (20%)*	20	16	13	
Resultat til beskatning	100			
Skatt (28%)	**28**	**…**	**…**	
Kontantstrøm etter skatt	**120-28**			

Verdi=   80 ??

*Noen bruker regnskapsmessige avskrivninger som en grov-test

Noen forenkler;
bruker faktisk skatt og legger til den utsatte skatten

Maskin = **Utsatt skatt**

IAS 12
Udiskontert!

+

Kontantstrøm med faktisk skatt/ på dagens skatteverdi

ERNST & YOUNG

Quality In Everything We Do

Noen forenkler;
bruker faktisk skatt og legger til den utsatte skatten

Maskin **=** **Utsatt skatt** **Diskontert**

+

Kontantstrøm med faktisk skatt/ på dagens skatteverdi

ERNST & YOUNG

Quality In Everything We Do
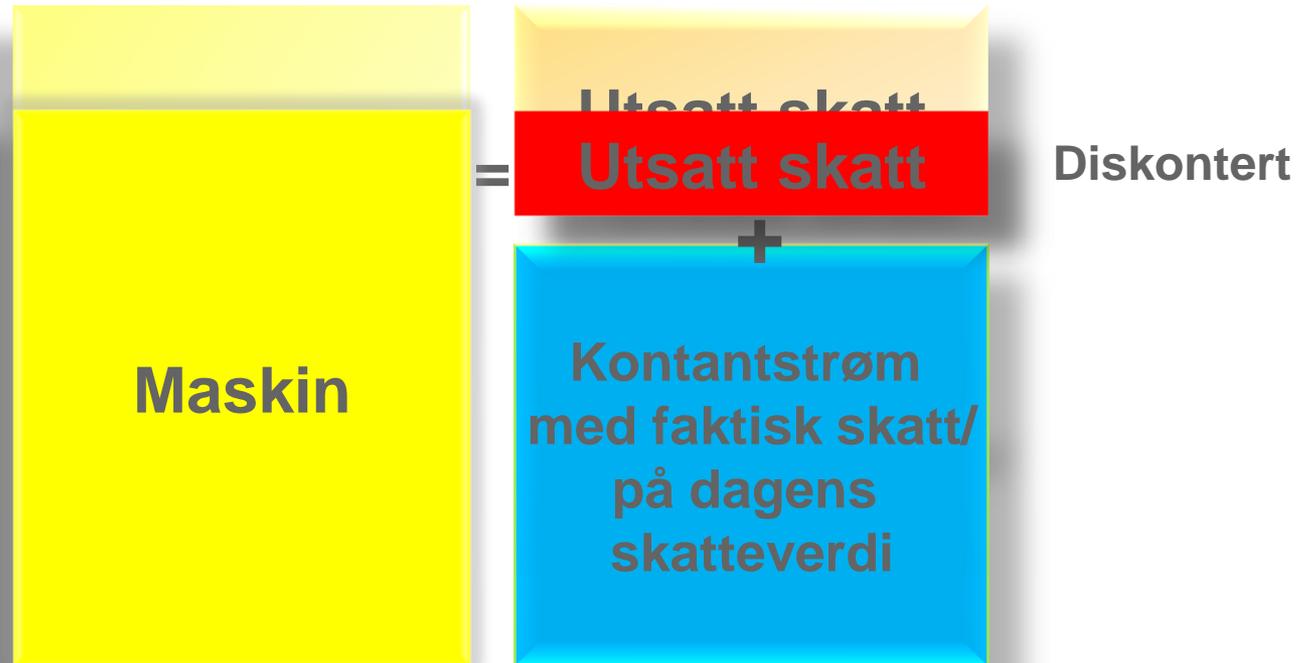
Value in use $= \displaystyle\sum_{t=1}^{T} \frac{CF_{post-tax,t}}{\left(1+r_{post-tax}\right)^{t}} = \displaystyle\sum_{t=1}^{T} \frac{CF_{pre-tax,t}}{\left(1+r_{pre-tax}\right)^{t}}$

Mao; svaret er akkurat det samme; før/før som etter/etter!!

$$\sum_{t=1}^{T} \frac{CF_{post-tax,t}}{(1+r_{post-tax})^t} = $$

$$\sum_{t=1}^{T} \frac{CF_{pre-tax,t}}{(1+r_{pre-tax})^t} = $$

Maskin 100

ERNST & YOUNG
Quality In Everything We Do

Spørsmål sålangt?

Noen C momenter:
Kjøp av lisens (eiendel) §10 i Nordsjøen

Verdi = 100
Skatteverdi =   0

Lisens
100

Utsatt skatt
78 ??

ERNST & YOUNG
Quality In Everything We Do

Kjøp av lisens (eiendel) §10 i Nordsjøen

Verdi = 100
Skattev = 100

Lisens
100
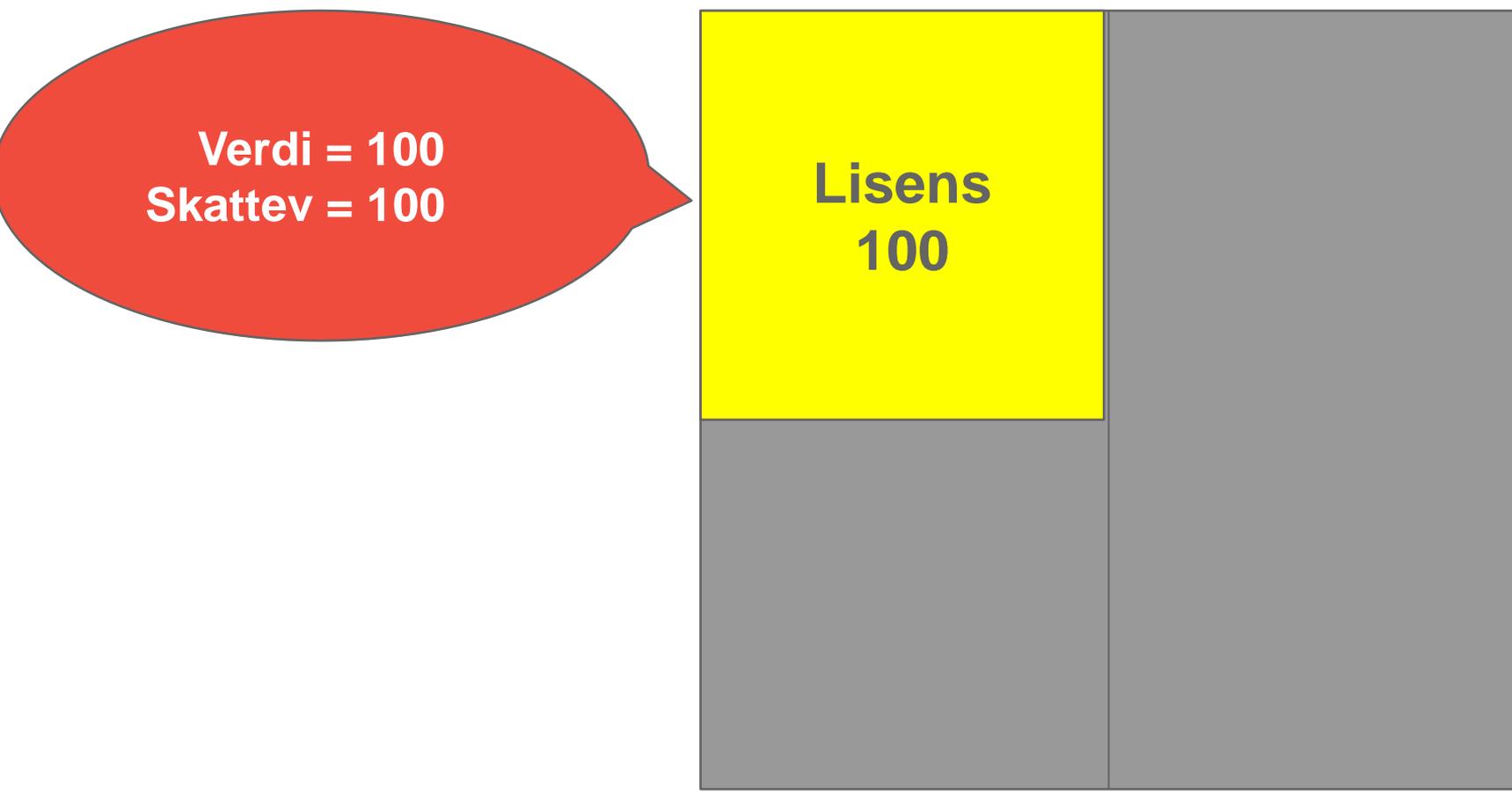
Kjøp av lisens (eiendel) §10 i Nordsjøen
Markedet verdsetter skatteposisjoner!

Verdi = 100
Skattev =   0
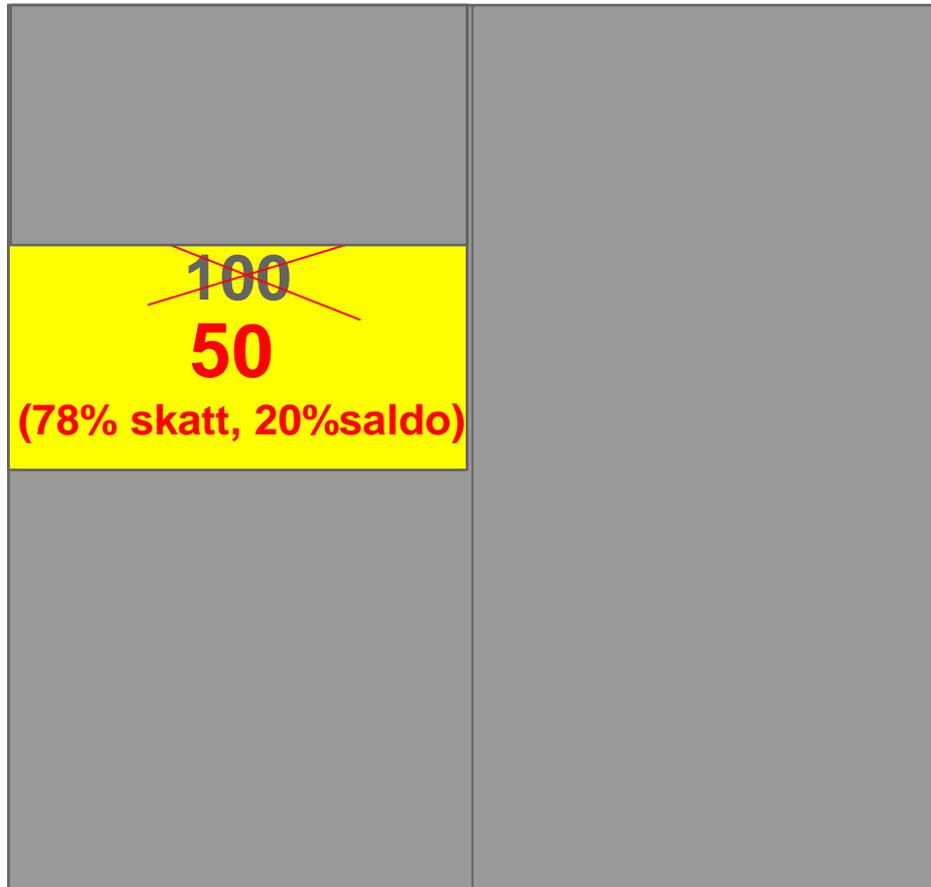
~~100~~
50
(78% skatt, 20%saldo)

Redusert verdi av skattefradrag :Om evig= Gordons formel, og 10% diskont; =
(1. års skattefradrag/) (avkast+avskr. sats) = (100*20%*78)%/(10%+20%)= 49

ERNST & YOUNG
Quality In Everything We Do

Noen C momenter:
Kjøp av lisens (eiendel) §10 i Nordsjøen

Verdi = 100 om full avsk
Skattev =   0
M.Verdi =   50

Lisens
50+50

Utsatt skatt
50

Diskontert
verdi…

ERNST & YOUNG
Quality In Everything We Do

Kjøp av lisens (eiendel) §10 i Nordsjøen IAS 16: fører netto/0 utsatt skatt

Verdi = 100
Skattev =   0
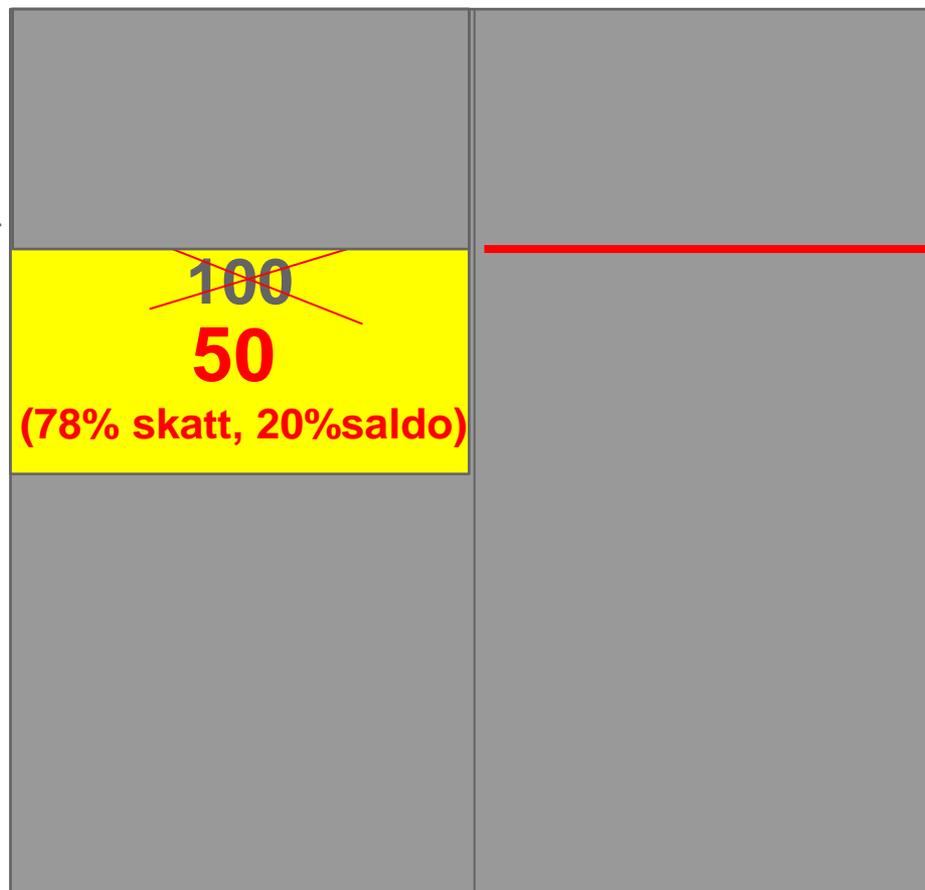
~~100~~
50
(78% skatt, 20%saldo)

0 utsatt skatt

Redusert verdi av skattefradrag :Om evig= Gordons formel, og 10% diskont; = (1. års skattefradrag/) (avkast+avskr. sats) = (100*20%*78)%/(10%+20%)= 49

ERNST & YOUNG
Quality In Everything We Do

IFRS 3 : Kjøp av virksomhet
DA skal utsatt skatt hensyntas

Takk for oppmerksomheten

Spørsmål?

ΞIl ERNST & YOUNG

Quality In Everything We Do

IAS 36

50   Estimates of future cash flows shall not include:
(a)   cash inflows or outflows from financing activities; or
(b)   income tax receipts or payments.

51   Estimated future cash flows reflect assumptions that are consistent with the way the discount rate is determined. Otherwise, the effect of some assumptions will be counted twice or ignored. Because the time value of money is considered by discounting the estimated future cash flows, these cash flows exclude cash inflows or outflows from financing activities. Similarly, because the discount rate is determined on a pre-tax basis, future cash flows are also estimated on a pre-tax basis.

Discount rate

55   The discount rate (rates) shall be a pre-tax rate (rates) that reflect(s) current market assessments of: (a)   the time value of money; and (b)   the risks specific to the asset for which the future cash flow estimates have not been adjusted.

56   A rate that reflects current market assessments of the time value of money and the risks specific to the asset is the return that investors would require if they were to choose an investment that would generate cash flows of amounts, timing and risk profile equivalent to those that the entity expects to derive from the asset. This rate is estimated from the rate implicit in current market transactions for similar assets or from the weighted average cost of capital of a listed entity that has a single asset (or a portfolio of assets) similar in terms of service potential and risks to the asset under review. However, the discount rate(s) used to measure an asset's value in use shall not reflect risks for which the future cash flow estimates have been adjusted. Otherwise, the effect of some assumptions will be double-counted.

ERNST & YOUNG
Quality In Everything We Do

IAS 36 BC om skatt

BCZ81

Future income tax cash flows may affect recoverable amount. It is convenient to analyse future tax cash flows into two components: (a) the future tax cash flows that would result from any difference between the tax base of an asset (the amount attributed to it for tax purposes) and its carrying amount, after recognition of any impairment loss. Such differences are described in IAS 12 *Income Taxes* as 'temporary differences'. (b) the future tax cash flows that would result if the tax base of the asset were equal to its recoverable amount.

BCZ82

For most assets, an enterprise recognises the tax consequences of temporary differences as a deferred tax liability or deferred tax asset in accordance with IAS 12. Therefore, to avoid double-counting, the future tax consequences of those temporary differences— the first component referred to in paragraph BCZ81—are not considered in determining recoverable amount (see further discussion in paragraphs BCZ86–BCZ89).

BCZ83

The tax base of an asset on initial recognition is normally equal to its cost. Therefore, net selling price22 implicitly reflects market participants' assessment of the future tax cash flows that would result if the tax base of the asset were equal to its recoverable amount. Therefore, no adjustment is required to net selling price to reflect the second component referred to in paragraph BCZ81.

Ernst & Young
Quality In Everything We Do

IAS 36 BC begrunnelsen for pre-tax.. Og metode

BCZ84

In principle, value in use should include the present value of the future tax cash flows that would result if the tax base of the asset were equal to its value in use—the second component referred to in paragraph BCZ81. Nevertheless it may be burdensome to estimate the effect of that component. This is because: (a) to avoid double-counting, it is necessary to exclude the effect of temporary differences; and (b) value in use would need to be determined by an iterative and possibly complex computation so that value in use itself reflects a tax base equal to that value in use. For these reasons, IASC decided to require an enterprise to determine value in use by using pre-tax future cash flows and, hence, a pre-tax discount rate.

Determining a pre-tax discount rate

BCZ85

In theory, discounting post-tax cash flows at a post-tax discount rate and discounting pre-tax cash flows at a pre-tax discount rate should give the same result, as long as the pre-tax discount rate is the post-tax discount rate adjusted to reflect the specific amount and timing of the future tax cash flows. The pre-tax discount rate is not always the post-tax discount rate grossed up by a standard rate of tax.

ERNST & YOUNG
Quality In Everything We Do

Interaction with IAS 12

BCZ86 IAS 36 requires that recoverable amount should be based on present value calculations, whereas under IAS 12 an enterprise determines deferred tax assets and liabilities by comparing the carrying amount of an asset (a present value if the carrying amount is based on recoverable amount) with its tax base (an undiscounted amount).

BCZ87 One way to eliminate this inconsistency would be to measure deferred tax assets and liabilities on a discounted basis. In developing the revised version of IAS 12 (approved in 1996), there was not enough support to require that deferred tax assets and liabilities should be measured on a discounted basis. IASC believed there was still not consensus to support such a change in existing practice. Therefore, IAS 36 requires an enterprise to measure the tax effects of temporary differences using the principles set out in IAS 12.

BCZ88 IAS 12 does not permit an enterprise to recognise certain deferred tax liabilities and assets. In such cases, **some believe that the value in use of an asset, or a cash-generating unit, should be adjusted to reflect the tax consequences of recovering its pre-tax value in use. For example, if the tax rate is 25 per cent, an enterprise must receive pre-tax cash flows with a present value of 400 in order to recover a carrying amount of 300.**

BCZ89 IASC acknowledged the conceptual merit of such adjustments but concluded that they would add unnecessary complexity. Therefore, IAS 36 neither requires nor permits such adjustments.