Danmarks Statistik
MODELGRUPPEN

Arbejdspapir*

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13. marts 2000

Ligninger for erhvervenes efterspørgsel efter maskinkapital og arbejdskraft, millennium reestimation

Resumé:

Papiret præsenterer en reestimation af erhvervenes efterspørgsel efter maskinkapital og arbejdskraft.

mow13300.wp

Nøgleord: Faktorefterspørgsel, maskinkapital, arbejdskraft, reestimation

1. Indledning

Baggrunden for reestimationen er Nationalregnskabets nye tal i 1995-priser. I forbindelsen med de nye NR-tal er der ikke kommet tilsvarende nye kapital- og investeringstal. Således er datagrundlaget for faktorblokken ikke ændret på kapital- og investringssiden. Dette kunne tale for at undlade en reestimation, og blot anvende korrektionsfaktorer som det har været tilfældet i maj98 og jan00. Det er dog alternativt valgt at reestimere. Formålet med reestimationen er dels at slippe af med korrektionsfaktorerne i faktorblok-ligningerne og dels at inddrage den information der trods alt ligger i de ny NR-tal.

Det forsøges at reestimere ligningerne under de gældende reestriktioner. Ligeledes bibeholdes opdelingen på 2. og 3. generationserhverv og graden af polynomierne i effektivitetsindeksene forsøges bibeholdt. Estimationsperioden er begrænset til perioden 1958-1992 som følge af fraværet af nye investerings- og kaitaltal.

I det følgende afsnit præsenteres estimationsresultaterne. Bilag 1 indeholder detaljerede estimationsresultater og bilag 2 indeholder forslag til nye modelligninger.

2. Estimationsresultater

Det har for de fleste erhverv været muligt at reestimere under de eksisterende restriktioner og trendantagelser. For erhvervene *nb, nn* og *qq* har det været nødvendigt at ændre initialværdierne i estimationsprogrammet for at sikre konvergens. Endelig er trendpolynomiet for arbejdskraften i *nf*-erhvervet ændret fra grad 5 til grad 4 for at opnå troværdige resultater.

Det gælder for samtlige erhverv, at der ikke er væsentlige ændringer i parameterestimater eller ligningernes egenskaber i forhold til reestimationen august 1997. I tabel 2.1 nedenfor er hovedresultaterne fra reestimationen præsenteret . De tilsvarende resultater fra august 1997 er angivet i parentes.

Tabel 2.1 Oversigt over reestimation af erhvervenes faktorefterspørgsel

Erhverv	Egenprisel.		Subst. el.	ρ		Spredning		D.W.	
	K	L		K	L	K	L	K	L
qq[1]	-0.32	-0.08	0.40*	0.67	0.78	2.51	1.74	1.09	1.22
	(-0.31)	(-0.09)	(0.40*)	(0.70)	(0.80)	(2.25)	(2.00)	(1.06)	(1.53)
qh[1]	-0.18	-0.02	0.20*	0.57	0.28	1.76	2.18	1.72	1.75
	(-0.18)	(-0.02)	(0.20*)	(0.66)	(0.51)	(1.63)	(2.48)	(1.58)	(1.39)
nm[1]	-0.34	-0.08	0.43	0.31	0.55	0.78	2.25	1.82	1.61
	(-0.38)	(-0.09)	(0.47)	(0.38)	(0.38)	(0.84)	(2.12)	(1.82)	(1.61)
qt[1]	-0.07	-0.03	0.10	0.95	0.64	1.58	3.08	2.35	1.23
	(-0.10)	(-0.04)	(0.14)	(0.94)	(0.60)	(1.56)	(2.80)	(2.16)	(1.40)
b[1]	-0.14	-0.03	0.17	0.68	0.74	2.75	4.81	1.29	1.09
	(-0.17)	(-0.03)	(0.20)	(0.58)	(0.71)	(2.31)	(4.11)	(1.57)	(1.52)
a[1]	-0.35	-0.16	0.51	0.37	0.60	1.89	3.13	1.33	1.55
	(-0.23)	(-0.11)	(0.40)	(0.41)	(0.72)	(1.69)	(3.22)	(1.25)	(1.38)
nq[1]	-0.27	-0.05	0.32	0.37	0.70	1.05	1.52	1.97	1.34
	(-0.23)	(-0.05)	(0.28)	(0.45)	(0.71)	(1.04)	(1.88)	(2.00)	(1.38)
qf[2]	0	0	0	0	0	13.1	10.3	0.30	0.43
	(0)	(0)	(0)	(0)	(0)	(12.6)	(11.2)	(0.37)	(0.47)
nf[1]	-0.50	-0.14	0.64	0.62	0.68	0.91	3.19	2.18	1.27
	(-0.42)	(-0.13)	(0.54)	(0.58)	(0.58)	(0.96)	(3.39)	(2.01)	(1.15)
nb[1]	-0.30	-0.15	0.44	0.39	0.77	2.36	4.13	1.40	1.07
	(-0.28)	(-0.14)	(0.42)	(0.27)	(0.69)	(1.94)	(2.14)	(1.86)	(1.64)
nk[1]	-0.44	-0.16	0.60	0.62	0.76	1.94	2.80	1.95	1.47
	(-0.34)	(-0.13)	(0.47)	(0.66)	(0.80)	(1.93)	(2.74)	(2.06)	(1.30)
nt[1]	-0.33	-0.07	0.40*	0.66	0.66	2.32	6.15	1.84	1.33
	(-0.34)	(-0.06)	(0.40*)	(0.66)	(0.80)	(2.28)	(6.59)	(1.82)	(1.06)
ne[2]	0	0	0	0	0	12.2	7.70	0.31	0.84
	(0)	(0)	(0)	(0)	(0)	(12.6)	(8.82)	(0.36)	(0.77)
qs[2]	-0.10	-0.30	0.40*	0	0	11.6	16.5	0.79	0.43
	(-0.09)	(-0.31)	(0.40*)	(0)	(0)	(11.4)	(16.3)	(0.80)	(0.48)
nn[1]	-0.20	-0.08	0.28	0.31	0.76	1.95	3.52	1.67	1.11
	(-0.21)	(0.10)	(0.32)	(0.37)	(0.77)	(1.98)	(3.92)	(1.57)	(0.93)
ng[2]	-0.05	-0.05	0.10*	-	-	10.6	12.34	0.94	1.12
	(-0.03)	(-0.07)	(0.10*)	(-)	(-)	(11.0)	(9.41)	(0.68)	(0.83)

anm: Tal i parantes = ADAM, august 1997. Egenpriselasticiterne er variende med data. Egenpriselasticiterne i reestimationen gælder for året 1992.

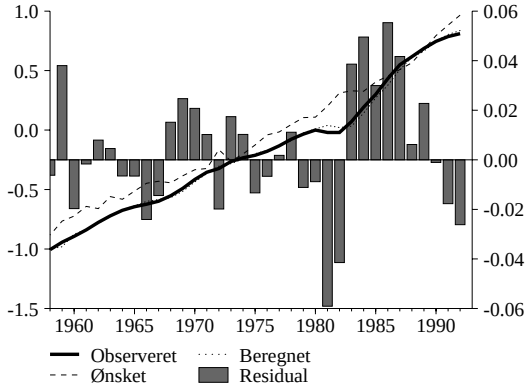
[1] 3.generationsdynamik, ettrins-estimation

[2] 2. generationsdynamik, totrins-estimation, restrikteret dynamik

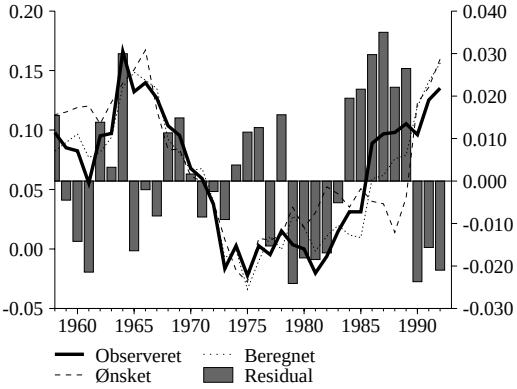
* substitutionselasticiteten er restrikteret

qq-erhvervet

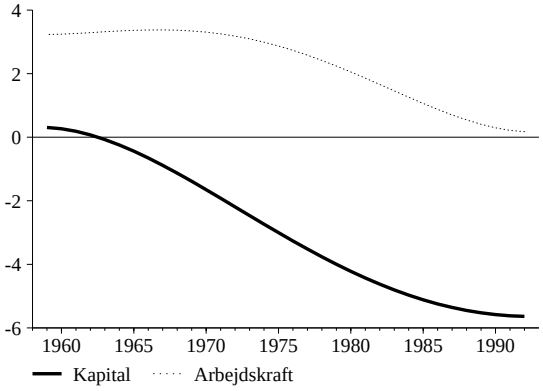
Kapitalmængde



Arbejdskraft

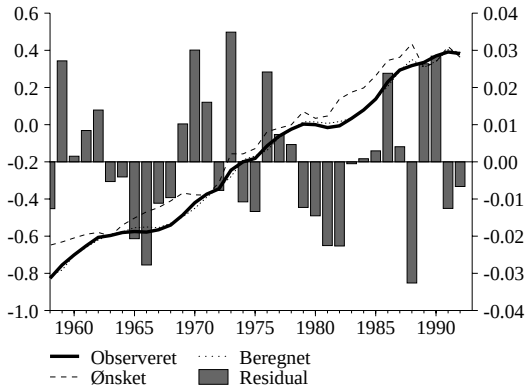


Effektivitetsindeks



qh-erhvervet

Kapitalmængde



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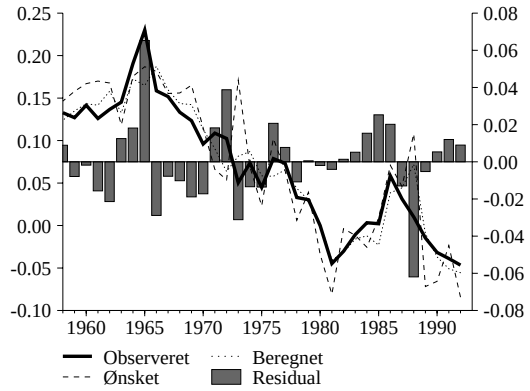

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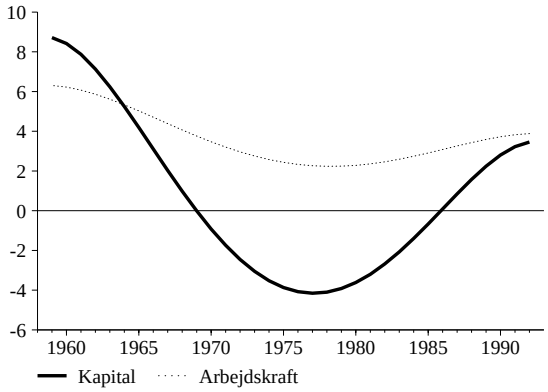
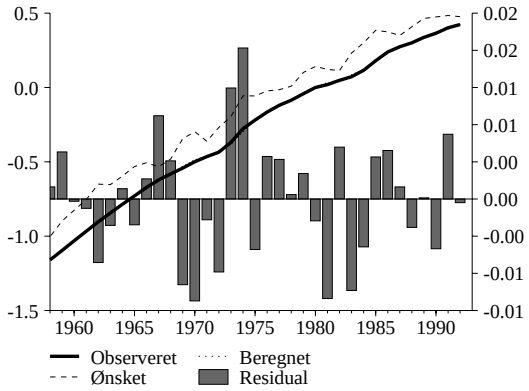


nm-erhvervet

Kapitalmængde



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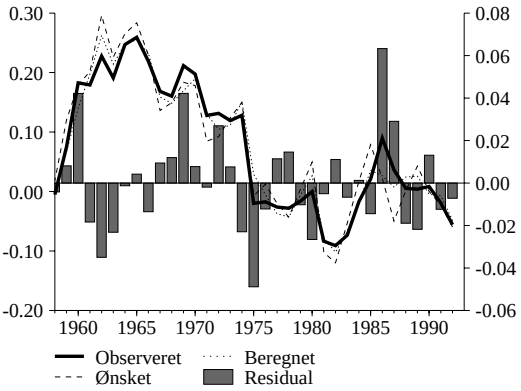

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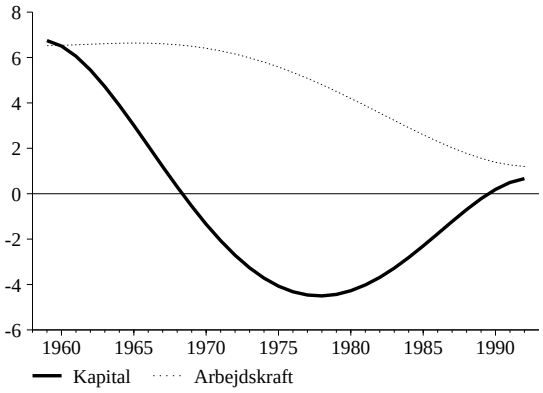

qt-erhvervet

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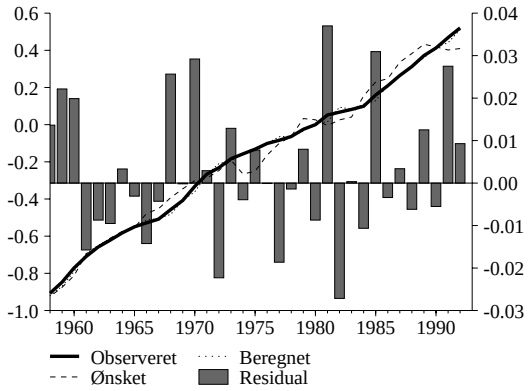

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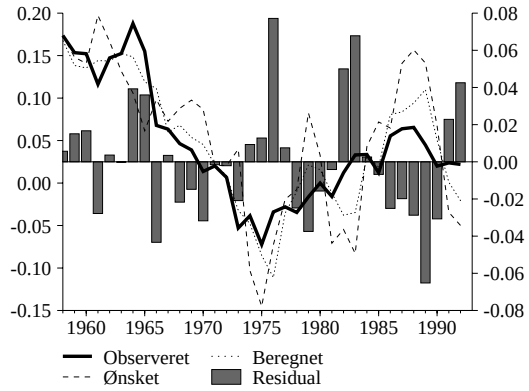

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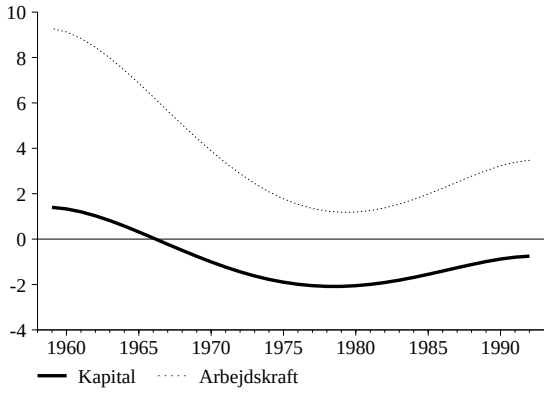

b-erhvervet

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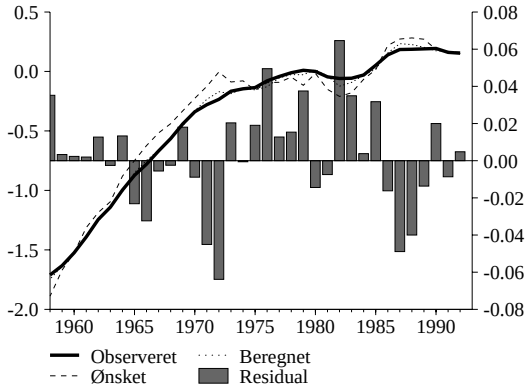

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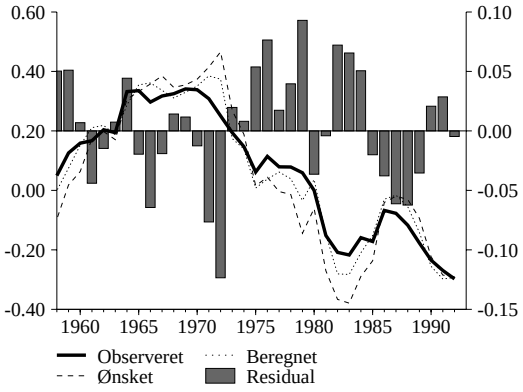

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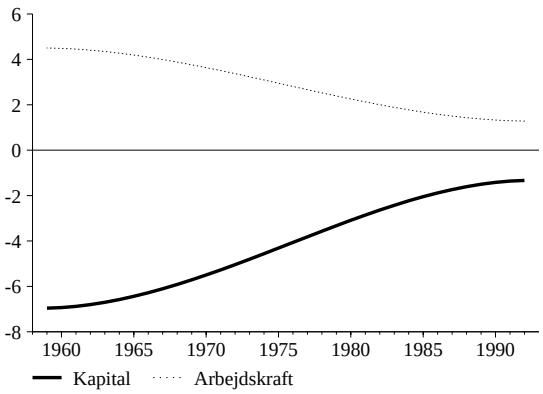

a-erhvervet

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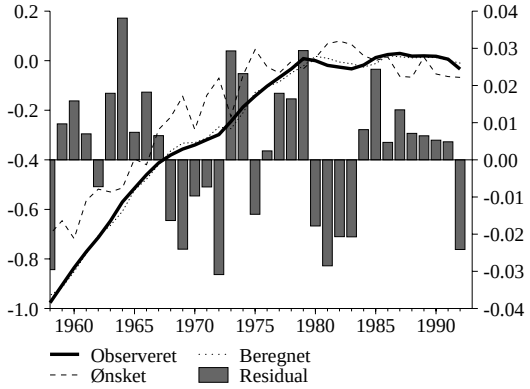

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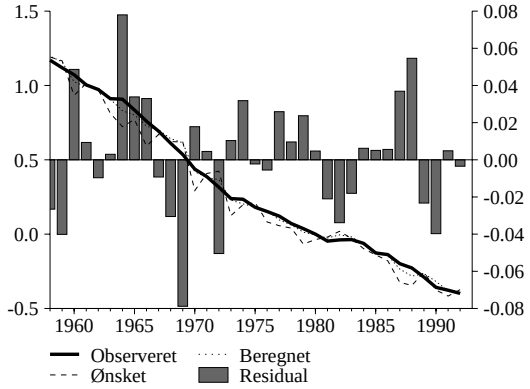

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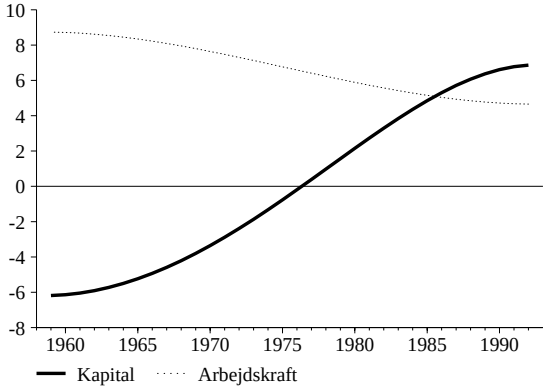
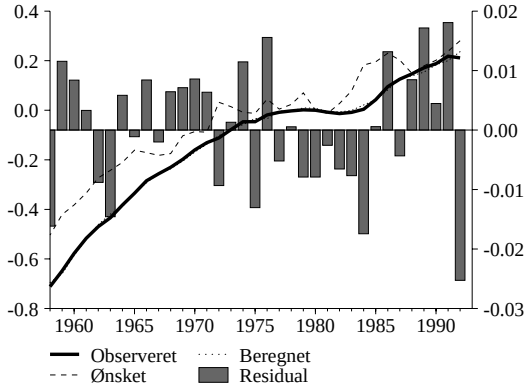


nq-erhvervet

Kapitalmængde



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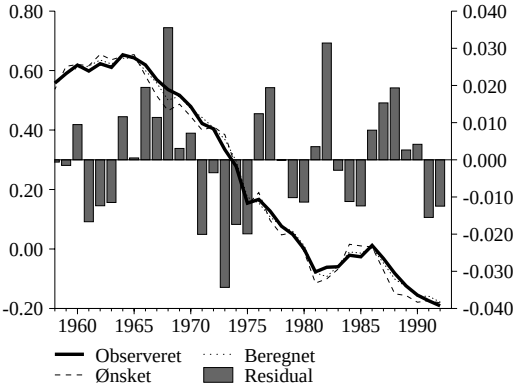

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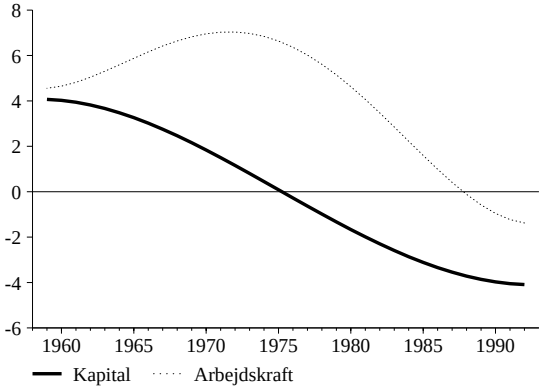

nf-erhvervet

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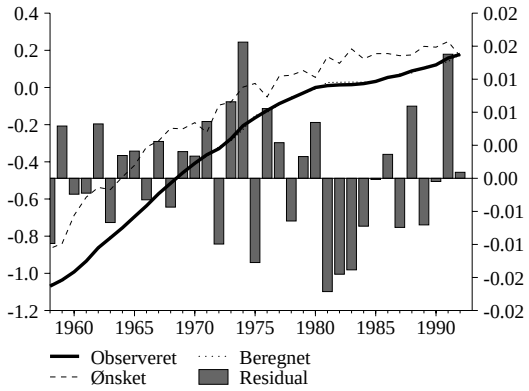

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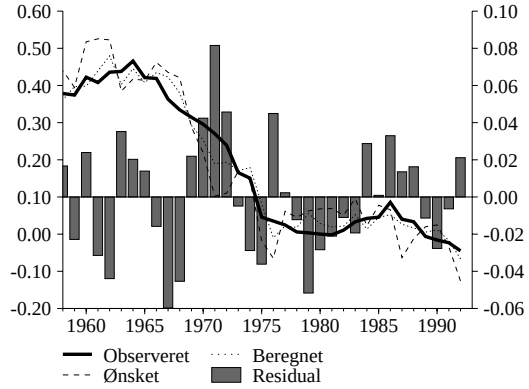

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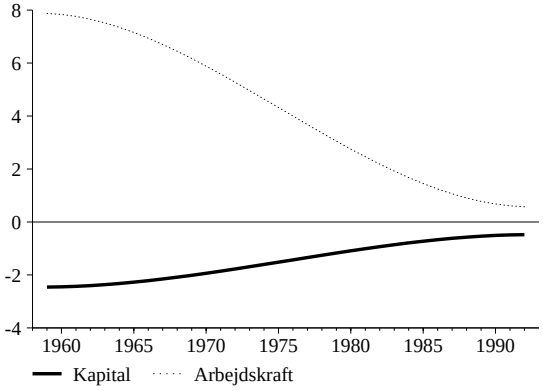

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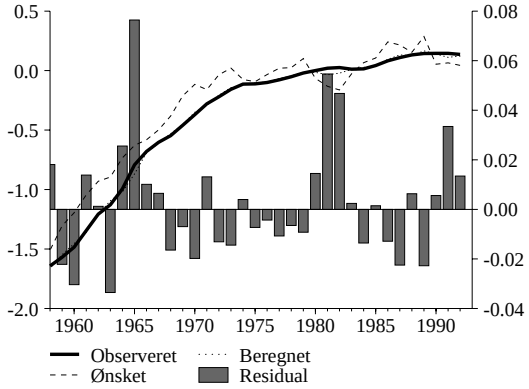

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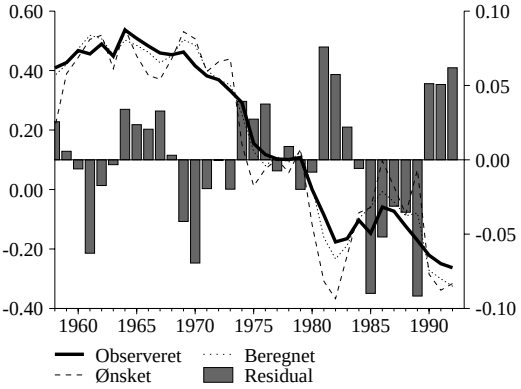

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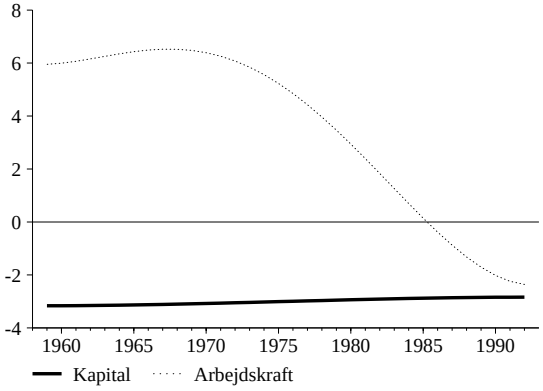

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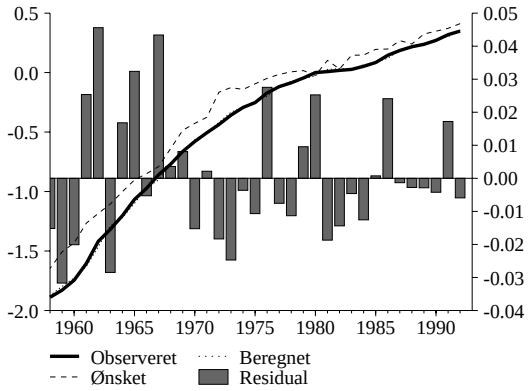

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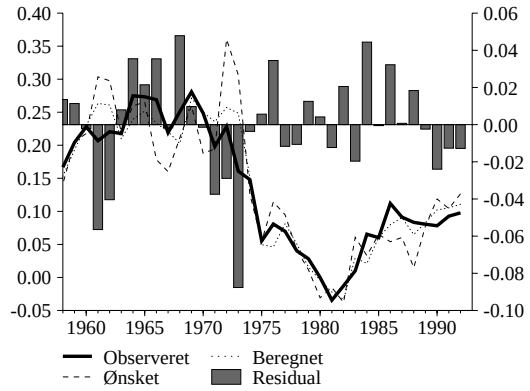

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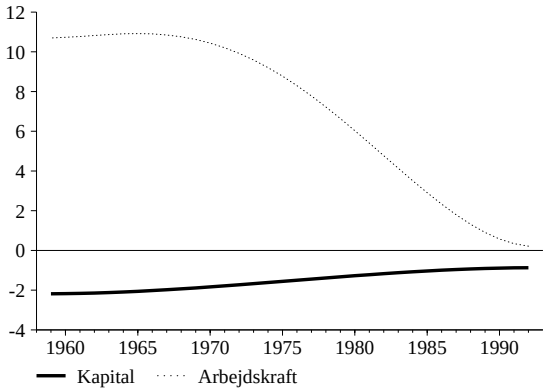

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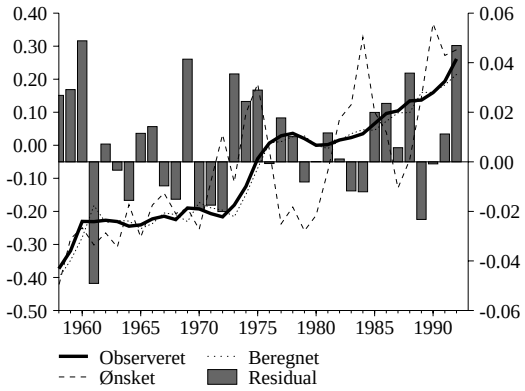

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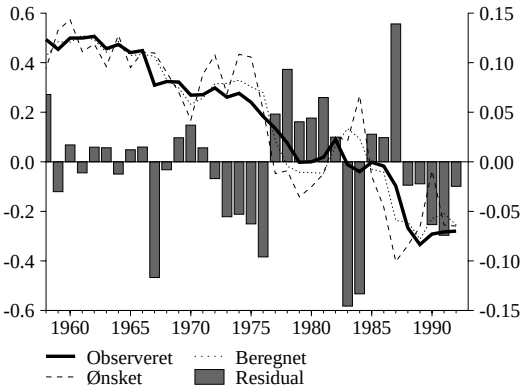

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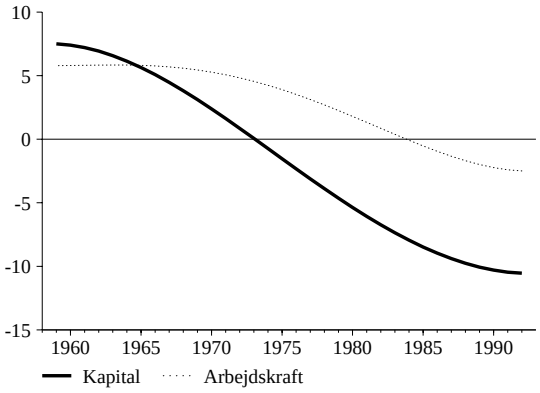
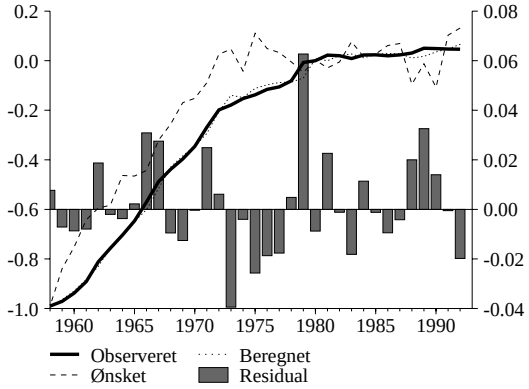


nn-erhvervet

Kapitalmængde



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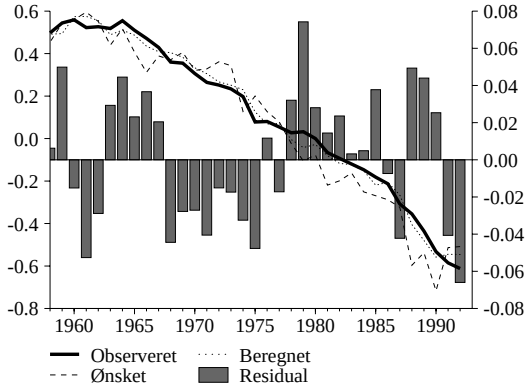
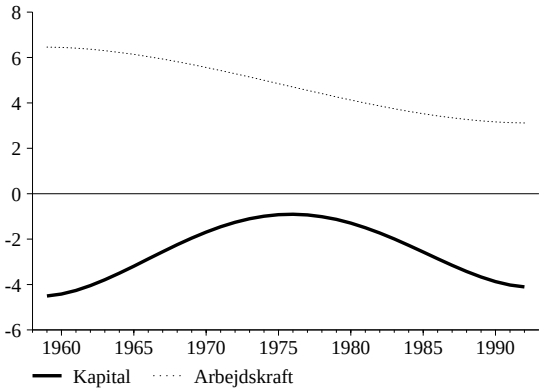


Effektivitetsindeks



Bilag 1 Estimationsresultater

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------------------------------------------------
qq-erhvervet
------------------------------------------------
 L-model                2

    PK      PL      R(e(60)) R(e(92))·  1.aar   Tilp.        s      DW
        .
  -0.32   0.32        0.27  -5.64       0.124  0.326        2.51   1.09
   0.08  -0.08        3.24   0.17       0.354 -0.228        1.74   1.22

 SIGMA     RHO_K     RHO_L     LOGL   gH1   gH2    GAMMA
 0.400     0.665    0.780     178.78
 0.000     0.164    0.132     0.000  0.646 -0.418    0.00

 TILPASNING
   0.12  0.41  0.60
   0.35  0.77  1.00


------------------------------------------------
qh-erhvervet
------------------------------------------------
 L-model                2

    PK      PL      R(e(60)) R(e(92))·  1.aar   Tilp.        s      DW
        .
  -0.18   0.18        8.42   3.46       0.305  0.366        1.76   1.72
   0.02  -0.02        6.22   3.88       0.427 -0.267        2.18   1.75

 SIGMA     RHO_K     RHO_L     LOGL   gH1   gH2    GAMMA
 0.200     0.577    0.275     175.95
 0.000     0.178    0.176     0.000  0.573 -0.307    0.00

 TILPASNING
   0.30  0.56  0.72
   0.43  0.73  1.00


------------------------------------------------
nm-erhvervet
------------------------------------------------
 L-model                2

    PK      PL      R(e(60)) R(e(92))·  1.aar   Tilp.        s      DW
        .
  -0.34   0.34        6.50   0.66       0.162  0.261        0.78   1.84
   0.08  -0.08        6.54   1.20       0.670 -0.138        2.25   1.54

 SIGMA     RHO_K     RHO_L     LOGL   gH1   gH2    GAMMA
 0.427     0.306    0.554     203.44
 0.135     0.176    0.149     0.000  0.330 -0.192    0.00

 TILPASNING
   0.16  0.38  0.54
   0.67  0.86  1.00
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```
------------------------------------------------
qt-erhvervet
------------------------------------------------
 L-model                2

    PK      PL      R(e(60)) R(e(92))·  1.aar   Tilp.        s      DW
        .
  -0.07   0.07        1.33  -0.75       0.137  0.189       1.58   2.35
   0.03  -0.03        9.13   3.47       0.341 -0.382       3.08   1.23

 SIGMA     RHO_K     RHO_L     LOGL   gH1   gH2    GAMMA
 0.101     0.949    0.640     167.73
 0.000     0.072    0.145     0.000  0.659 -0.277    0.00

 TILPASNING
   0.14  0.30  0.43
   0.34  0.62  1.00


------------------------------------------------
b-erhvervet
------------------------------------------------
 L-model                2

    PK      PL      R(e(60)) R(e(92))·  1.aar   Tilp.        s      DW
        .
  -0.14   0.14       -6.93  -1.33       0.372  0.633       2.75   1.29
   0.03  -0.03        4.48   1.28       0.667 -0.039       4.81   1.09

 SIGMA     RHO_K     RHO_L     LOGL   gH1   gH2    GAMMA
 0.170     0.684    0.736     156.48
 0.088     0.094    0.093     0.000  0.333 -0.294    0.00

 TILPASNING
   0.37  0.77  0.92
   0.67  0.96  1.00


------------------------------------------------
a-erhvervet
------------------------------------------------
 L-model                2

    PK      PL      R(e(60)) R(e(92))·  1.aar   Tilp.        s      DW
        .
  -0.35   0.35       -6.14   6.86       0.143  0.261       1.86   1.33
   0.16  -0.16        8.72   4.66       0.394 -0.219       3.13   1.55

 SIGMA     RHO_K     RHO_L     LOGL   gH1   gH2    GAMMA
 0.514     0.368    0.601     171.82
 0.311     0.156    0.131     0.000  0.606 -0.387    0.00

 TILPASNING
   0.14  0.37  0.53
   0.39  0.78  1.00
```

```
------------------------------------------------
nq-erhvervet
------------------------------------------------
 L-model                2

    PK      PL      R(e(60)) R(e(92))·  1.aar   Tilp.        s      DW
       .
  -0.27   0.27        4.02  -4.09       0.116  0.251        1.05   1.97
   0.05  -0.05        4.65  -1.38       0.613 -0.146        1.52   1.34

 SIGMA     RHO_K     RHO_L     LOGL   gH1   gH2    GAMMA
 0.324     0.374    0.701     207.88
 0.146     0.187    0.128     0.000  0.387 -0.241    0.00

 TILPASNING
   0.12  0.34  0.50
   0.61  0.85  1.00


------------------------------------------------
nf-erhvervet
------------------------------------------------
 L-model                2

    PK      PL      R(e(60)) R(e(92))·  1.aar   Tilp.        s      DW
       .
  -0.50   0.50       -2.45  -0.48       0.094  0.179        0.91   2.18
   0.14  -0.14        7.83   0.57       0.445 -0.325        3.19   1.27

 SIGMA     RHO_K     RHO_L     LOGL   gH1   gH2    GAMMA
 0.640     0.615    0.677     185.81
 0.260     0.155    0.129     0.000  0.555 -0.230    0.00

 TILPASNING
   0.09  0.26  0.39
   0.45  0.68  1.00

------------------------------------------------
nb-erhvervet
------------------------------------------------
 L-model                2

    PK      PL      R(e(60)) R(e(92))·  1.aar   Tilp.        s      DW
       .
  -0.30   0.30       -3.16  -2.84       0.208  0.377        2.36   1.40
   0.15  -0.15        5.99  -2.36       0.471 -0.212        4.13   1.07

 SIGMA     RHO_K     RHO_L     LOGL   gH1   gH2    GAMMA
 0.444     0.386    0.774     148.56
 0.186     0.162    0.131     0.000  0.529 -0.318    0.00
```

```
------------------------------------------------
nk-erhvervet
------------------------------------------------
 L-model                2

    PK      PL      R(e(60)) R(e(92))·  1.aar   Tilp.        s      DW
        .
  -0.44   0.44       -2.18  -0.87       0.154  0.395       1.94   1.95
   0.16  -0.16       10.73   0.22       0.456 -0.194       2.80   1.47

 SIGMA     RHO_K     RHO_L     LOGL   gH1   gH2    GAMMA
 0.597     0.620    0.759     163.97
 0.272     0.153    0.124     0.000  0.544 -0.350    0.00

 TILPASNING
   0.15  0.49  0.69
   0.46  0.81  1.00


------------------------------------------------
nt-erhvervet
------------------------------------------------
 L-model                2

    PK      PL      R(e(60)) R(e(92))·  1.aar   Tilp.        s      DW
        .
  -0.33   0.33         7.40 -10.54       0.066  0.120       2.32   1.84
   0.07  -0.07         5.80  -2.50       0.275 -0.330       6.15   1.33

 SIGMA     RHO_K     RHO_L     LOGL   gH1   gH2    GAMMA
 0.400     0.657    0.664     130.18
 0.000     0.147    0.170     0.000  0.725 -0.395    0.00

 TILPASNING
   0.07  0.18  0.28
   0.28  0.67  1.00



------------------------------------------------
qs-erhvervet
------------------------------------------------
 L-model                2

    PK      PL      R(e(60)) R(e(92))·  1.aar   Tilp.        s      DW
        .
  -0.10   0.10       -5.55   5.14       1.000  1.000       11.61   0.79
   0.30  -0.30        0.32  11.51       1.000  0.000       16.49   0.43

 SIGMA     RHO_K     RHO_L     LOGL   gH1   gH2    GAMMA
 0.400     0.000    0.000      50.46
 0.000     0.000    0.000     0.000  0.000  0.000    0.00

 TILPASNING
   1.00  1.00  1.00
   1.00  1.00  1.00
```

```
------------------------------------------------
nn-erhvervet
------------------------------------------------
 L-model                2

    PK      PL      R(e(60)) R(e(92))·  1.aar   Tilp.        s      DW
        .
  -0.20   0.20       -4.42  -4.10       0.128  0.233        1.95   1.67
   0.08  -0.08        6.44   3.11       0.299 -0.267        3.52   1.11

 SIGMA     RHO_K     RHO_L     LOGL   gH1   gH2    GAMMA
 0.280     0.309    0.757     160.90
 0.230     0.186    0.112     0.000  0.701 -0.434    0.00

 TILPASNING
   0.13  0.33  0.49
   0.30  0.73  1.00


------------------------------------------------
ng-erhvervet
------------------------------------------------
 L-model                2

    PK      PL      R(e(60)) R(e(92))·  1.aar   Tilp.        s      DW
        .
  -0.05   0.05       -8.45   2.24       1.000  1.000       10.58   0.94
   0.05  -0.05        5.40  -2.86       1.000  0.000       12.34   1.12

 SIGMA     RHO_K     RHO_L     LOGL   gH1   gH2    GAMMA
 0.100     0.000    0.000      42.00
 0.000     0.000    0.000     0.000  0.000  0.000    0.00

 TILPASNING
   1.00  1.00  1.00
   1.00  1.00  1.00
```

Bilag 2 Modelligninger

```
() FAKTORBLOK (ARBEJDSKRAFT OG MASKINKAPITAL)
()
() ----------------------------------------------------
() a-erhvervet
() ----------------------------------------------------
()
()
FRML _DJ_D   rpimae     = 0.25*rpimae(-1) + 0.75*(pima/pima(-1)-1) $
FRML _DJ_D   bfknma     = fKnma /fKma $
FRML _DJRD   uima       = bfknma*pima*(1-tsdsu*bivpm)/(1-tsdsu)
                            *((1-tsdsu)*iwlo+bfinmva-0.50*rpimae) $
FRML _SJRD   fkmaw      = (1/dtfkma)*0.37239**(0.51386/(1-0.51386))
                           *(((fYfa-10000*vhstk)/20654.84961)/1.86409)
                           *( ( ((la*319.72708)/(uima*93037.33594))
                                *(dtfkma/dthqa) )
                              **(1-0.51386)
                              *((1-0.37239)/0.37239)**0.51386+1 )
                             **(0.51386/(1-0.51386))*93037.33594 $
FRML _SJRDF  Dlog(fKma) = 0.14298*Dlog(fKmaw)
                            + 0.26134*(log(fKmaw(-1))-log(fKma(-1)))
                            + rofKma
                            *( Dlog(fKma(-1))
                               -0.14298*Dlog(fKmaw(-1))
                                -0.26134*(log(fKmaw(-2))-log(fKma(-2))) ) $
FRML _GJ_D   fKmak      = fKma $
FRML _DJRD   fIma       = dif(fKma) + bfimva*fKma(-1) $
FRML _DJRD   fKnma      = fIma + (1-bfinmva)*fKnma(-1) $

FRML _SJRD   HQan        = (1/dthqa)
                           *( (1/(1-0.37239))
                              *(((fYfa-10000*vhstk)/20654.84961)/1.86409)
                              **(-(1/0.51386-1))
                              -(0.37239/(1-0.37239))
                              *(dtfkma*fKmak/93037.33594)**(-(1/0.51386-1)) )
                            **(-(1/(1/0.51386-1)))*319.72708 $
FRML _SJRDF  log(HQa)    = 0.39432*(log(HQan)-log(Hgn))+log(Hgn)
                           + (1-0.39432+(-0.21891))
                           *(log(HQan(-1))-log(Hgn(-1)))
                           - (-0.21891)*(log(HQan(-2))-log(Hgn(-2))) +
                           rohqa
                           *( log(HQa(-1))
                              -( 0.39432*(log(HQan(-1))-log(Hgn(-1)))
                                 +(1-0.39432+(-0.21891))
                                 *(log(HQan(-2))-log(Hgn(-2)))-(-0.21891)
                                 *(log(HQan(-3))-log(Hgn(-3)))+log(Hgn(-1)) ) ) $
FRML _GJRD   Qa         = HQa/Hgn*1000 $
FRML _G      Qsa         = bqsa*Qa $
FRML _I      Qwa         = Qa-Qsa $
FRML _G      Ywa         = lnak1*Hgn*Qwa*0.001 $
FRML _DJR    la         = (Ywa+siqal)/(Qwa*Hgn)*1000 $


FRML _SJRD   HQaw       = (1/dthqa)*(1-0.37239)**(0.51386/(1-0.51386))
                           *(((fYfa-10000*vhstk)/20654.84961)/1.86409)
                           *( ( ((uima*93037.33594)/(la*319.72708))
                                *(dthqa/dtfkma) )
                              **(1-0.51386)
                              *(0.37239/(1-0.37239))**0.51386+1 )
                             **(0.51386/(1-0.51386))*319.72708 $
() ----------------------------------------------------
() ng-erhvervet
() ----------------------------------------------------
()
()
FRML _DJ_D   rpimnge      = 0.25*rpimnge(-1) + 0.75*(pimng/pimng(-1)-1) $
FRML _DJ_D   bfknmng      = fKnmng/fKmng $
FRML _DJRD   uimng       = bfknmng*pimng*(1-tsdsu*bivpm)/(1-tsdsu)
                           *((1-tsdsu)*iwlo+bfinmvng-0.50*rpimnge) $
FRML _SJRD   fkmngw      = (1/dtfkmng)*0.078408**(0.10000/(1-0.10000))
                           *((fXng/5989.83984)/0.96920)
                           *( ( ((lng*1.23090)/(uimng*2362.01611))
                                *(dtfkmng/dthqng) )
                              **(1-0.10000)
                              *((1-0.078408)/0.078408)**0.10000+1 )
                             **(0.10000/(1-0.10000))*2362.01611 $
FRML _GJ_D   fKmngk      = fKmng $
```

```
FRML _SJRDF  Dlog(fKmng) = 0.20*Dlog(fKmngw) + 0.20*Dlog(fKmngw(-1))
                           + 0.20*Dlog(fKmngw(-2)) + 0.20*Dlog(fKmngw(-3))
                           + 0.20*Dlog(fKmngw(-4)) $
FRML _DJRD   fImng       = dif(fKmng) + bfimvng*fKmng(-1) $
FRML _DJRD   fKnmng       = fImng + (1-bfinmvng)*fKnmng(-1) $

FRML _SJRD   HQngw       = (1/dthqng)*(1-0.078408)**(0.10000/(1-0.10000))
                            *((fXng/5989.83984)/0.96920)
                            *( ( ((uimng*2362.01611)/(lng*1.23090))
                                 *(dthqng/dtfkmng) )
                               **(1-0.10000)
                               *(0.078408/(1-0.078408))**0.10000+1 )
                             **(0.10000/(1-0.10000))*1.23090 $
FRML _SJRDF  Dlog(HQng)  = 0.65*(Dlog(HQngw)-Dlog(Hgn)) + Dlog(Hgn)
                          + 0.20*(Dlog(HQngw(-1))-Dlog(Hgn(-1)))
                          + 0.15*(Dlog(HQngw(-2))-Dlog(Hgn(-2))) $
FRML _GJRD   Qng        = HQng/Hgn*1000 $
FRML _G      Qsng        = bqsng*Qng $
FRML _I      Qwng        = Qng-Qsng $
FRML _G      Ywng        = lnak1*Hgn*Qwng*0.001*klng $
FRML _DJR    lng        = (Ywng+0.00*Siqam+0.00*Siqu+0.001*Siqab)
                           /(Qwng*Hgn)*1000 $
() ------------------------------------------------------
() ne-erhvervet
() ------------------------------------------------------
()
()
FRML _DJ_D   rpimnee      = 0.25*rpimnee(-1) + 0.75*(pimne/pimne(-1)-1) $
FRML _DJ_D   bfknmne      = fKnmne/fKmne $
FRML _DJRD   uimne       = bfknmne*pimne*(1-tsdsu*bivpm)/(1-tsdsu)
                          *((1-tsdsu)*iwlo+bfinmvne-0.50*rpimnee) $
FRML _SJRD   fkmnew      = (fXne/17316.31641)/1.46750/dtfkmne*23545.26367 $
FRML _SJRDF  Dlog(fKmne) = 0.20*Dlog(fKmnew) + 0.20*Dlog(fKmnew(-1))
                           + 0.20*Dlog(fKmnew(-2)) + 0.20*Dlog(fKmnew(-3))
                           + 0.20*Dlog(fKmnew(-4)) $
FRML _DJRD   fImne       = dif(fKmne) + bfimvne*fKmne(-1) $
FRML _DJRD   fKnmne       = fImne + (1-bfinmvne)*fKnmne(-1) $

FRML _SJRD   HQnew       = (fXne/17316.31641)/1.29017/dthqne*18.95190 $
FRML _SJRDF  Dlog(HQne)   = 0.65*(Dlog(HQnew)-Dlog(Hgn)) + Dlog(Hgn)
                          + 0.20*(Dlog(HQnew(-1))-Dlog(Hgn(-1)))
                          + 0.15*(Dlog(HQnew(-2))-Dlog(Hgn(-2))) $
FRML _GJRD   Qne        = HQne/Hgn*1000 $
FRML _G      Qsne        = bqsne*Qne $
FRML _I      Qwne        = Qne-Qsne $
FRML _G      Ywne        = lnak1*Hgn*Qwne*0.001 $
FRML _DJR    lne       = (Ywne+0.00*Siqam+0.01*Siqu+0.008*Siqab)
                           /(Qwne*Hgn)*1000 $
() ------------------------------------------------------
() nf-erhvervet
() ------------------------------------------------------
()
()
FRML _DJ_D   rpimnfe     = 0.25*rpimnfe(-1) + 0.75*(pimnf/pimnf(-1)-1) $
FRML _DJ_D   bfknmnf     = fKnmnf /fKmnf $
FRML _DJRD   uimnf       = bfknmnf*pimnf*(1-tsdsu*bivpm)/(1-tsdsu)
                            *((1-tsdsu)*iwlo+bfinmvnf-0.50*rpimnfe) $
FRML _SJRD   fkmnfw      = (1/dtfkmnf)*0.25501**(0.63954/(1-0.63954))
                          *((fYfnf/20050.52734)/1.04579)
                          *( ( ((lnf*132.58244)/(uimnf*35274.01953))
                               *(dtfkmnf/dthqnf) )
                             **(1-0.63954)
                             *((1-0.25501)/0.25501)**0.63954+1 )
                           **(0.63954/(1-0.63954))*35274.01953 $
FRML _SJRDF  Dlog(fKmnf) = 0.094150*Dlog(fKmnfw)
                           + 0.17940*(log(fKmnfw(-1))-log(fKmnf(-1)))
                           + rofKmnf
                           *( Dlog(fKmnf(-1))
                              -0.094150*Dlog(fKmnfw(-1))
                             -0.17940*(log(fKmnfw(-2))-log(fKmnf(-2))) ) $
FRML _GJ_D   fKmnfk      = fKmnf $
FRML _DJRD   fImnf       = dif(fKmnf) + bfimvnf*fKmnf(-1) $
FRML _DJRD   fKnmnf      = fImnf + (1-bfinmvnf)*fKnmnf(-1) $

FRML _SJRD   HQnfn        = (1/dthqnf)
                           *( (1/(1-0.25501))
                              *((fYfnf/20050.52734)/1.04579)
                              **(-(1/0.63954-1))
```

```
                                -(0.25501/(1-0.25501))
                                *(dtfkmnf*fKmnfk/35274.01953)**(-(1/0.63954-1)) )
                               **(-(1/(1/0.63954-1)))*132.58244 $
FRML _SJRDF  log(HQnf)    = 0.44515*(log(HQnfn)-log(Hgn))+log(Hgn)
                             + (1-0.44515+(-0.32477))
                             *(log(HQnfn(-1))-log(Hgn(-1)))
                             - (-0.32477)*(log(HQnfn(-2))-log(Hgn(-2))) +
                             rohqnf
                             *( log(HQnf(-1))
                                -( 0.44515*(log(HQnfn(-1))-log(Hgn(-1)))
                                   +(1-0.44515+(-0.32477))
                                   *(log(HQnfn(-2))-log(Hgn(-2)))-(-0.32477)
                                   *(log(HQnfn(-3))-log(Hgn(-3)))+log(Hgn(-1)) ) ) $
FRML _GJRD   Qnf     = HQnf/Hgn*1000 $
FRML _G      Qsnf         = bqsnf*Qnf $
FRML _I      Qwnf         = Qnf-Qsnf $
FRML _G      Ywnf         = lnak1*Hgn*Qwnf*0.001 $
FRML _DJR    lnf         = (Ywnf+siqal)/(Qwnf*Hgn)*1000 $


FRML _SJRD   HQnfw       = (1/dthqnf)*(1-0.25501)**(0.63954/(1-0.63954))
                           *((fYfnf/20050.52734)/1.04579)
                           *( ( ((uimnf*35274.01953)/(lnf*132.58244))
                                *(dthqnf/dtfkmnf) )
                              **(1-0.63954)
                              *(0.25501/(1-0.25501))**0.63954+1 )
                             **(0.63954/(1-0.63954))*132.58244 $
() -----------------------------------------------------
() nn-erhvervet
() -----------------------------------------------------
()
()
FRML _DJ_D   rpimnne     = 0.25*rpimnne(-1) + 0.75*(pimnn/pimnn(-1)-1) $
FRML _DJ_D   bfknmnn     = fKnmnn /fKmnn $
FRML _DJRD   uimnn       = bfknmnn*pimnn*(1-tsdsu*bivpm)/(1-tsdsu)
                            *((1-tsdsu)*iwlo+bfinmvnn-0.50*rpimnne) $
FRML _SJRD   fkmnnw      = (1/dtfkmnn)*0.71584**(0.27990/(1-0.27990))
                          *((fYfnn/5885.21484)/1.09807)
                          *( ( ((lnn*24.31935)/(uimnn*7675.25293))
                               *(dtfkmnn/dthqnn) )
                             **(1-0.27990)
                             *((1-0.71584)/0.71584)**0.27990+1 )
                            **(0.27990/(1-0.27990))*7675.25293 $
FRML _SJRDF  Dlog(fKmnn) = 0.12828*Dlog(fKmnnw)
                           + 0.23319*(log(fKmnnw(-1))-log(fKmnn(-1)))
                           + rofKmnn
                           *( Dlog(fKmnn(-1))
                              -0.12828*Dlog(fKmnnw(-1))
                             -0.23319*(log(fKmnnw(-2))-log(fKmnn(-2))) ) $
FRML _GJ_D   fKmnnk      = fKmnn $
FRML _DJRD   fImnn       = dif(fKmnn) + bfimvnn*fKmnn(-1) $
FRML _DJRD   fKnmnn      = fImnn + (1-bfinmvnn)*fKnmnn(-1) $

FRML _SJRD   HQnnn        = (1/dthqnn)
                            *( (1/(1-0.71584))
                               *((fYfnn/5885.21484)/1.09807)
                               **(-(1/0.27990-1))
                               -(0.71584/(1-0.71584))
                               *(dtfkmnn*fKmnnk/7675.25293)**(-(1/0.27990-1)) )
                             **(-(1/(1/0.27990-1)))*24.31935 $
FRML _SJRDF  log(HQnn)    = 0.29903*(log(HQnnn)-log(Hgn))+log(Hgn)
                             + (1-0.29903+(-0.26671))
                             *(log(HQnnn(-1))-log(Hgn(-1)))
                             - (-0.26671)*(log(HQnnn(-2))-log(Hgn(-2))) +
                             rohqnn
                             *( log(HQnn(-1))
                                -( 0.29903*(log(HQnnn(-1))-log(Hgn(-1)))
                                   +(1-0.29903+(-0.26671))
                                   *(log(HQnnn(-2))-log(Hgn(-2)))-(-0.26671)
                                   *(log(HQnnn(-3))-log(Hgn(-3)))+log(Hgn(-1)) ) ) $
FRML _GJRD   Qnn     = HQnn/Hgn*1000 $
FRML _G      Qsnn         = bqsnn*Qnn $
FRML _I      Qwnn         = Qnn-Qsnn $
FRML _G      Ywnn         = lnak1*Hgn*Qwnn*0.001 $
FRML _DJR    lnn         = (Ywnn+siqal)/(Qwnn*Hgn)*1000 $


FRML _SJRD   HQnnw       = (1/dthqnn)*(1-0.71584)**(0.27990/(1-0.27990))
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```
                            *((fYfnn/5885.21484)/1.09807)
                            *( ( ((uimnn*7675.25293)/(lnn*24.31935))
                                 *(dthqnn/dtfkmnn) )
                               **(1-0.27990)
                               *(0.71584/(1-0.71584))**0.27990+1 )
                             **(0.27990/(1-0.27990))*24.31935 $
() -----------------------------------------------------
() nb-erhvervet
() -----------------------------------------------------
()
()
FRML _DJ_D   rpimnbe     = 0.25*rpimnbe(-1) + 0.75*(pimnb/pimnb(-1)-1) $
FRML _DJ_D   bfknmnb     = fKnmnb /fKmnb $
FRML _DJRD   uimnb       = bfknmnb*pimnb*(1-tsdsu*bivpm)/(1-tsdsu)
                             *((1-tsdsu)*iwlo+bfinmvnb-0.50*rpimnbe) $
FRML _SJRD   fkmnbw      = (1/dtfkmnb)*0.42867**(0.44408/(1-0.44408))
                            *((fYfnb/11246.19141)/0.92005)
                            *( ( ((lnb*59.31255)/(uimnb*24979.33203))
                                 *(dtfkmnb/dthqnb) )
                               **(1-0.44408)
                               *((1-0.42867)/0.42867)**0.44408+1 )
                             **(0.44408/(1-0.44408))*24979.33203 $
FRML _SJRDF  Dlog(fKmnb) = 0.20793*Dlog(fKmnbw)
                            + 0.37698*(log(fKmnbw(-1))-log(fKmnb(-1)))
                            + rofKmnb
                            *( Dlog(fKmnb(-1))
                               -0.20793*Dlog(fKmnbw(-1))
                             -0.37698*(log(fKmnbw(-2))-log(fKmnb(-2))) ) $
FRML _GJ_D   fKmnbk      = fKmnb $
FRML _DJRD   fImnb       = dif(fKmnb) + bfimvnb*fKmnb(-1) $
FRML _DJRD   fKnmnb      = fImnb + (1-bfinmvnb)*fKnmnb(-1) $

FRML _SJRD   HQnbn        = (1/dthqnb)
                            *( (1/(1-0.42867))
                               *((fYfnb/11246.19141)/0.92005)
                               **(-(1/0.44408-1))
                               -(0.42867/(1-0.42867))
                               *(dtfkmnb*fKmnbk/24979.33203)**(-(1/0.44408-1)) )
                             **(-(1/(1/0.44408-1)))*59.31255 $
FRML _SJRDF  log(HQnb)    = 0.47077*(log(HQnbn)-log(Hgn))+log(Hgn)
                            + (1-0.47077+(-0.21169))
                            *(log(HQnbn(-1))-log(Hgn(-1)))
                            - (-0.21169)*(log(HQnbn(-2))-log(Hgn(-2))) +
                            rohqnb
                            *( log(HQnb(-1))
                               -( 0.47077*(log(HQnbn(-1))-log(Hgn(-1)))
                                  +(1-0.47077+(-0.21169))
                                  *(log(HQnbn(-2))-log(Hgn(-2)))-(-0.21169)
                                  *(log(HQnbn(-3))-log(Hgn(-3)))+log(Hgn(-1)) ) ) $
FRML _GJRD   Qnb     = HQnb/Hgn*1000 $
FRML _G      Qsnb         = bqsnb*Qnb $
FRML _I      Qwnb         = Qnb-Qsnb $
FRML _G      Ywnb         = lnak1*Hgn*Qwnb*0.001 $
FRML _DJR    lnb         = (Ywnb+siqal)/(Qwnb*Hgn)*1000 $


FRML _SJRD   HQnbw       = (1/dthqnb)*(1-0.42867)**(0.44408/(1-0.44408))
                            *((fYfnb/11246.19141)/0.92005)
                            *( ( ((uimnb*24979.33203)/(lnb*59.31255))
                                 *(dthqnb/dtfkmnb) )
                               **(1-0.44408)
                               *(0.42867/(1-0.42867))**0.44408+1 )
                             **(0.44408/(1-0.44408))*59.31255 $
() -----------------------------------------------------
() nm-erhvervet
() -----------------------------------------------------
()
()
FRML _DJ_D   rpimnme     = 0.25*rpimnme(-1) + 0.75*(pimnm/pimnm(-1)-1) $
FRML _DJ_D   bfknmnm     = fKnmnm /fKmnm $
FRML _DJRD   uimnm       = bfknmnm*pimnm*(1-tsdsu*bivpm)/(1-tsdsu)
                             *((1-tsdsu)*iwlo+bfinmvnm-0.50*rpimnme) $
FRML _SJRD   fkmnmw      = (1/dtfkmnm)*0.33790**(0.42728/(1-0.42728))
                            *((fYfnm/39700.45703)/1.11402)
                            *( ( ((lnm*266.76538)/(uimnm*43780.55859))
                                 *(dtfkmnm/dthqnm) )
                               **(1-0.42728)
                               *((1-0.33790)/0.33790)**0.42728+1 )
```

```
                              **(0.42728/(1-0.42728))*43780.55859 $
FRML _SJRDF  Dlog(fKmnm) = 0.16177*Dlog(fKmnmw)
                              + 0.26071*(log(fKmnmw(-1))-log(fKmnm(-1)))
                              + rofKmnm
                              *( Dlog(fKmnm(-1))
                                 -0.16177*Dlog(fKmnmw(-1))
                                -0.26071*(log(fKmnmw(-2))-log(fKmnm(-2))) ) $
FRML _GJ_D   fKmnmk      = fKmnm $
FRML _DJRD   fImnm       = dif(fKmnm) + bfimvnm*fKmnm(-1) $
FRML _DJRD   fKnmnm      = fImnm + (1-bfinmvnm)*fKnmnm(-1) $

FRML _SJRD   HQnmn        = (1/dthqnm)
                             *( (1/(1-0.33790))
                                *((fYfnm/39700.45703)/1.11402)
                                **(-(1/0.42728-1))
                                -(0.33790/(1-0.33790))
                                *(dtfkmnm*fKmnmk/43780.55859)**(-(1/0.42728-1)) )
                              **(-(1/(1/0.42728-1)))*266.76538 $
FRML _SJRDF  log(HQnm)    = 0.67049*(log(HQnmn)-log(Hgn))+log(Hgn)
                             + (1-0.67049+(-0.13799))
                             *(log(HQnmn(-1))-log(Hgn(-1)))
                             - (-0.13799)*(log(HQnmn(-2))-log(Hgn(-2))) +
                             rohqnm
                             *( log(HQnm(-1))
                                -( 0.67049*(log(HQnmn(-1))-log(Hgn(-1)))
                                   +(1-0.67049+(-0.13799))
                                   *(log(HQnmn(-2))-log(Hgn(-2)))-(-0.13799)
                                   *(log(HQnmn(-3))-log(Hgn(-3)))+log(Hgn(-1)) ) ) $
FRML _GJRD   Qnm     = HQnm/Hgn*1000 $
FRML _G      Qsnm         = bqsnm*Qnm $
FRML _I      Qwnm         = Qnm-Qsnm $
FRML _G      Ywnm         = lnak1*Hgn*Qwnm*0.001 $
FRML _DJR    lnm         = (Ywnm+siqal)/(Qwnm*Hgn)*1000 $


FRML _SJRD   HQnmw       = (1/dthqnm)*(1-0.33790)**(0.42728/(1-0.42728))
                           *((fYfnm/39700.45703)/1.11402)
                           *( ( ((uimnm*43780.55859)/(lnm*266.76538))
                                *(dthqnm/dtfkmnm) )
                              **(1-0.42728)
                              *(0.33790/(1-0.33790))**0.42728+1 )
                            **(0.42728/(1-0.42728))*266.76538 $
() ------------------------------------------------------
() nt-erhvervet
() ------------------------------------------------------
()
()
FRML _DJ_D   rpimnte     = 0.25*rpimnte(-1) + 0.75*(pimnt/pimnt(-1)-1) $
FRML _DJ_D   bfknmnt     = fKnmnt /fKmnt $
FRML _DJRD   uimnt       = bfknmnt*pimnt*(1-tsdsu*bivpm)/(1-tsdsu)
                            *((1-tsdsu)*iwlo+bfinmvnt-0.50*rpimnte) $
FRML _SJRD   fkmntw      = (1/dtfkmnt)*0.31507**(0.40000/(1-0.40000))
                          *((fYfnt/5491.12305)/0.81262)
                          *( ( ((lnt*43.00395)/(uimnt*5734.10938))
                               *(dtfkmnt/dthqnt) )
                             **(1-0.40000)
                             *((1-0.31507)/0.31507)**0.40000+1 )
                          **(0.40000/(1-0.40000))*5734.10938 $
FRML _SJRDF  Dlog(fKmnt) = 0.066320*Dlog(fKmntw)
                           + 0.12018*(log(fKmntw(-1))-log(fKmnt(-1)))
                           + rofKmnt
                           *( Dlog(fKmnt(-1))
                              -0.066320*Dlog(fKmntw(-1))
                             -0.12018*(log(fKmntw(-2))-log(fKmnt(-2))) ) $
FRML _GJ_D   fKmntk      = fKmnt $
FRML _DJRD   fImnt       = dif(fKmnt) + bfimvnt*fKmnt(-1) $
FRML _DJRD   fKnmnt      = fImnt + (1-bfinmvnt)*fKnmnt(-1) $

FRML _SJRD   HQntn        = (1/dthqnt)
                             *( (1/(1-0.31507))
                                *((fYfnt/5491.12305)/0.81262)
                                **(-(1/0.40000-1))
                                -(0.31507/(1-0.31507))
                                *(dtfkmnt*fKmntk/5734.10938)**(-(1/0.40000-1)) )
                              **(-(1/(1/0.40000-1)))*43.00395 $
FRML _SJRDF  log(HQnt)    = 0.27541*(log(HQntn)-log(Hgn))+log(Hgn)
                             + (1-0.27541+(-0.32995))
                             *(log(HQntn(-1))-log(Hgn(-1)))
```

```
                            - (-0.32995)*(log(HQntn(-2))-log(Hgn(-2))) +
                            rohqnt
                            *( log(HQnt(-1))
                               -( 0.27541*(log(HQntn(-1))-log(Hgn(-1)))
                                  +(1-0.27541+(-0.32995))
                                  *(log(HQntn(-2))-log(Hgn(-2)))-(-0.32995)
                                  *(log(HQntn(-3))-log(Hgn(-3)))+log(Hgn(-1)) ) ) $
FRML _GJRD   Qnt     = HQnt/Hgn*1000 $
FRML _G      Qsnt        = bqsnt*Qnt $
FRML _I      Qwnt        = Qnt-Qsnt $
FRML _G      Ywnt        = lnak1*Hgn*Qwnt*0.001 $
FRML _DJR    lnt       = (Ywnt+siqal)/(Qwnt*Hgn)*1000 $


FRML _SJRD   HQntw       = (1/dthqnt)*(1-0.31507)**(0.40000/(1-0.40000))
                           *((fYfnt/5491.12305)/0.81262)
                           *( ( ((uimnt*5734.10938)/(lnt*43.00395))
                                *(dthqnt/dtfkmnt) )
                              **(1-0.40000)
                              *(0.31507/(1-0.31507))**0.40000+1 )
                            **(0.40000/(1-0.40000))*43.00395 $
() -----------------------------------------------------
() nk-erhvervet
() -----------------------------------------------------
()
()
FRML _DJ_D   rpimnke     = 0.25*rpimnke(-1) + 0.75*(pimnk/pimnk(-1)-1) $
FRML _DJ_D   bfknmnk     = fKnmnk /fKmnk $
FRML _DJRD   uimnk       = bfknmnk*pimnk*(1-tsdsu*bivpm)/(1-tsdsu)
                            *((1-tsdsu)*iwlo+bfinmvnk-0.50*rpimnke) $
FRML _SJRD   fkmnkw      = (1/dtfkmnk)*0.30830**(0.59723/(1-0.59723))
                           *((fYfnk/14713.75293)/1.20734)
                           *( ( ((lnk*76.11945)/(uimnk*24220.41016))
                                *(dtfkmnk/dthqnk) )
                              **(1-0.59723)
                              *((1-0.30830)/0.30830)**0.59723+1 )
                           **(0.59723/(1-0.59723))*24220.41016 $
FRML _SJRDF  Dlog(fKmnk) = 0.15418*Dlog(fKmnkw)
                           + 0.39532*(log(fKmnkw(-1))-log(fKmnk(-1)))
                           + rofKmnk
                           *( Dlog(fKmnk(-1))
                              -0.15418*Dlog(fKmnkw(-1))
                            -0.39532*(log(fKmnkw(-2))-log(fKmnk(-2))) ) $
FRML _GJ_D   fKmnkk      = fKmnk $
FRML _DJRD   fImnk       = dif(fKmnk) + bfimvnk*fKmnk(-1) $
FRML _DJRD   fKnmnk      = fImnk + (1-bfinmvnk)*fKnmnk(-1) $

FRML _SJRD   HQnkn        = (1/dthqnk)
                           *( (1/(1-0.30830))
                              *((fYfnk/14713.75293)/1.20734)
                              **(-(1/0.59723-1))
                              -(0.30830/(1-0.30830))
                              *(dtfkmnk*fKmnkk/24220.41016)**(-(1/0.59723-1)) )
                            **(-(1/(1/0.59723-1)))*76.11945 $
FRML _SJRDF  log(HQnk)    = 0.45561*(log(HQnkn)-log(Hgn))+log(Hgn)
                           + (1-0.45561+(-0.19449))
                           *(log(HQnkn(-1))-log(Hgn(-1)))
                           - (-0.19449)*(log(HQnkn(-2))-log(Hgn(-2))) +
                           rohqnk
                           *( log(HQnk(-1))
                              -( 0.45561*(log(HQnkn(-1))-log(Hgn(-1)))
                                 +(1-0.45561+(-0.19449))
                                 *(log(HQnkn(-2))-log(Hgn(-2)))-(-0.19449)
                                 *(log(HQnkn(-3))-log(Hgn(-3)))+log(Hgn(-1)) ) ) $
FRML _GJRD   Qnk     = HQnk/Hgn*1000 $
FRML _G      Qsnk        = bqsnk*Qnk $
FRML _I      Qwnk        = Qnk-Qsnk $
FRML _G      Ywnk        = lnak1*Hgn*Qwnk*0.001 $
FRML _DJR    lnk       = (Ywnk+siqal)/(Qwnk*Hgn)*1000 $



FRML _SJRD   HQnkw       = (1/dthqnk)*(1-0.30830)**(0.59723/(1-0.59723))
                           *((fYfnk/14713.75293)/1.20734)
                           *( ( ((uimnk*24220.41016)/(lnk*76.11945))
                                *(dthqnk/dtfkmnk) )
                              **(1-0.59723)
                              *(0.30830/(1-0.30830))**0.59723+1 )
```

```
                            **(0.59723/(1-0.59723))*76.11945 $
() ------------------------------------------------------
() nq-erhvervet
() ------------------------------------------------------
()
()
FRML _DJ_D   rpimnqe     = 0.25*rpimnqe(-1) + 0.75*(pimnq/pimnq(-1)-1) $
FRML _DJ_D   bfknmnq     = fKnmnq /fKmnq $
FRML _DJRD   uimnq       = bfknmnq*pimnq*(1-tsdsu*bivpm)/(1-tsdsu)
                             *((1-tsdsu)*iwlo+bfinmvnq-0.50*rpimnqe) $
FRML _SJRD   fkmnqw      = (1/dtfkmnq)*0.35579**(0.32396/(1-0.32396))
                           *((fYfnq/34046.76172)/0.99077)
                           *( ( ((lnq*213.36974)/(uimnq*32390.25781))
                                *(dtfkmnq/dthqnq) )
                              **(1-0.32396)
                              *((1-0.35579)/0.35579)**0.32396+1 )
                            **(0.32396/(1-0.32396))*32390.25781 $
FRML _SJRDF  Dlog(fKmnq) = 0.11621*Dlog(fKmnqw)
                           + 0.25072*(log(fKmnqw(-1))-log(fKmnq(-1)))
                           + rofKmnq
                           *( Dlog(fKmnq(-1))
                              -0.11621*Dlog(fKmnqw(-1))
                             -0.25072*(log(fKmnqw(-2))-log(fKmnq(-2))) ) $
FRML _GJ_D   fKmnqk      = fKmnq $
FRML _DJRD   fImnq       = dif(fKmnq) + bfimvnq*fKmnq(-1) $
FRML _DJRD   fKnmnq      = fImnq + (1-bfinmvnq)*fKnmnq(-1) $

FRML _SJRD   HQnqn        = (1/dthqnq)
                           *( (1/(1-0.35579))
                              *((fYfnq/34046.76172)/0.99077)
                              **(-(1/0.32396-1))
                              -(0.35579/(1-0.35579))
                              *(dtfkmnq*fKmnqk/32390.25781)**(-(1/0.32396-1)) )
                            **(-(1/(1/0.32396-1)))*213.36974 $
FRML _SJRDF  log(HQnq)    = 0.61318*(log(HQnqn)-log(Hgn))+log(Hgn)
                           + (1-0.61318+(-0.14581))
                           *(log(HQnqn(-1))-log(Hgn(-1)))
                           - (-0.14581)*(log(HQnqn(-2))-log(Hgn(-2))) +
                           rohqnq
                           *( log(HQnq(-1))
                              -( 0.61318*(log(HQnqn(-1))-log(Hgn(-1)))
                                 +(1-0.61318+(-0.14581))
                                 *(log(HQnqn(-2))-log(Hgn(-2)))-(-0.14581)
                                 *(log(HQnqn(-3))-log(Hgn(-3)))+log(Hgn(-1)) ) ) $
FRML _GJRD   Qnq     = HQnq/Hgn*1000 $
FRML _G      Qsnq         = bqsnq*Qnq $
FRML _I      Qwnq         = Qnq-Qsnq $
FRML _G      Ywnq         = lnak1*Hgn*Qwnq*0.001 $
FRML _DJR    lnq          = (Ywnq+siqal)/(Qwnq*Hgn)*1000 $



FRML _SJRD   HQnqw       = (1/dthqnq)*(1-0.35579)**(0.32396/(1-0.32396))
                           *((fYfnq/34046.76172)/0.99077)
                           *( ( ((uimnq*32390.25781)/(lnq*213.36974))
                                *(dthqnq/dtfkmnq) )
                              **(1-0.32396)
                              *(0.35579/(1-0.35579))**0.32396+1 )
                            **(0.32396/(1-0.32396))*213.36974 $
() ------------------------------------------------------
() b-erhvervet
() ------------------------------------------------------
()
FRML _DJ_D   rpimbe      = 0.25*rpimbe(-1) + 0.75*(pimb/pimb(-1)-1) $
FRML _DJ_D   bfknmb      = fKnmb /fKmb $
FRML _DJRD   uimb        = bfknmb*pimb*(1-tsdsu*bivpm)/(1-tsdsu)
                             *((1-tsdsu)*iwlo+bfinmvb-0.50*rpimbe) $
FRML _SJRD   fkmbw       = (1/dtfkmb)*0.64069**(0.16989/(1-0.16989))
                           *((fYfb/42855.93359)/1.07672)
                           *( ( ((lb*302.47302)/(uimb*41362.68750))
                                *(dtfkmb/dthqb) )
                              **(1-0.16989)
                              *((1-0.64069)/0.64069)**0.16989+1 )
                            **(0.16989/(1-0.16989))*41362.68750 $
FRML _SJRDF  Dlog(fKmb) = 0.37206*Dlog(fKmbw)
                           + 0.63303*(log(fKmbw(-1))-log(fKmb(-1)))
                           + rofKmb
                           *( Dlog(fKmb(-1))
```

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                                -0.37206*Dlog(fKmbw(-1))
                               -0.63303*(log(fKmbw(-2))-log(fKmb(-2))) ) $
FRML _GJ_D   fKmbk      = fKmb $
FRML _DJRD   fImb       = dif(fKmb) + bfimvb*fKmb(-1) $
FRML _DJRD   fKnmb      = fImb + (1-bfinmvb)*fKnmb(-1) $

FRML _SJRD   HQbn        = (1/dthqb)
                           *( (1/(1-0.64069))
                              *((fYfb/42855.93359)/1.07672)
                              **(-(1/0.16989-1))
                              -(0.64069/(1-0.64069))
                              *(dtfkmb*fKmbk/41362.68750)**(-(1/0.16989-1)) )
                            **(-(1/(1/0.16989-1)))*302.47302 $
FRML _SJRDF  log(HQb)    = 0.66655*(log(HQbn)-log(Hgn))+log(Hgn)
                           + (1-0.66655+(-0.039320))
                           *(log(HQbn(-1))-log(Hgn(-1)))
                           - (-0.039320)*(log(HQbn(-2))-log(Hgn(-2))) +
                           rohqb
                           *( log(HQb(-1))
                              -( 0.66655*(log(HQbn(-1))-log(Hgn(-1)))
                                 +(1-0.66655+(-0.039320))
                                 *(log(HQbn(-2))-log(Hgn(-2)))-(-0.039320)
                                 *(log(HQbn(-3))-log(Hgn(-3)))+log(Hgn(-1)) ) ) $
FRML _GJRD   Qb     = HQb/Hgn*1000 $
FRML _G      Qsb         = bqsb*Qb $
FRML _I      Qwb         = Qb-Qsb $
FRML _G      Ywb         = lnak1*Hgn*Qwb*0.001 $
FRML _DJR    lb         = (Ywb+siqal)/(Qwb*Hgn)*1000 $


FRML _SJRD   HQbw       = (1/dthqb)*(1-0.64069)**(0.16989/(1-0.16989))
                           *((fYfb/42855.93359)/1.07672)
                           *( ( ((uimb*41362.68750)/(lb*302.47302))
                                *(dthqb/dtfkmb) )
                              **(1-0.16989)
                              *(0.64069/(1-0.64069))**0.16989+1 )
                            **(0.16989/(1-0.16989))*302.47302 $
() ------------------------------------------------------
() qh-erhvervet
() ------------------------------------------------------
()
()
FRML _DJ_D   rpimqhe     = 0.25*rpimqhe(-1) + 0.75*(pimqh/pimqh(-1)-1) $
FRML _DJ_D   bfknmqh     = fKnmqh /fKmqh $
FRML _DJRD   uimqh       = bfknmqh*pimqh*(1-tsdsu*bivpm)/(1-tsdsu)
                            *((1-tsdsu)*iwlo+bfinmvqh-0.50*rpimqhe) $
FRML _SJRD   fkmqhw      = (1/dtfkmqh)*0.38789**(0.20000/(1-0.20000))
                          *((fYfqh/76032.83594)/1.37372)
                          *( ( ((lqh*627.44708)/(uimqh*39781.26563))
                               *(dtfkmqh/dthqqh) )
                             **(1-0.20000)
                             *((1-0.38789)/0.38789)**0.20000+1 )
                           **(0.20000/(1-0.20000))*39781.26563 $
FRML _SJRDF  Dlog(fKmqh) = 0.30480*Dlog(fKmqhw)
                           + 0.36631*(log(fKmqhw(-1))-log(fKmqh(-1)))
                           + rofKmqh
                           *( Dlog(fKmqh(-1))
                              -0.30480*Dlog(fKmqhw(-1))
                             -0.36631*(log(fKmqhw(-2))-log(fKmqh(-2))) ) $
FRML _GJ_D   fKmqhk      = fKmqh $
FRML _DJRD   fImqh       = dif(fKmqh) + bfimvqh*fKmqh(-1) $
FRML _DJRD   fKnmqh      = fImqh + (1-bfinmvqh)*fKnmqh(-1) $

FRML _SJRD   HQqhn        = (1/dthqqh)
                           *( (1/(1-0.38789))
                              *((fYfqh/76032.83594)/1.37372)
                              **(-(1/0.20000-1))
                              -(0.38789/(1-0.38789))
                              *(dtfkmqh*fKmqhk/39781.26563)**(-(1/0.20000-1)) )
                            **(-(1/(1/0.20000-1)))*627.44708 $
FRML _SJRDF  log(HQqh)    = 0.42677*(log(HQqhn)-log(Hgn))+log(Hgn)
                           + (1-0.42677+(-0.26671))
                           *(log(HQqhn(-1))-log(Hgn(-1)))
                           - (-0.26671)*(log(HQqhn(-2))-log(Hgn(-2))) +
                           rohqqh
                           *( log(HQqh(-1))
                              -( 0.42677*(log(HQqhn(-1))-log(Hgn(-1)))
                                 +(1-0.42677+(-0.26671))
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                                *(log(HQqhn(-2))-log(Hgn(-2)))-(-0.26671)
                                *(log(HQqhn(-3))-log(Hgn(-3)))+log(Hgn(-1)) ) ) $
FRML _GJRD   Qqh     = HQqh/Hgn*1000 $
FRML _G      Qsqh         = bqsqh*Qqh $
FRML _I      Qwqh         = Qqh-Qsqh $
FRML _G      Ywqh         = lnak1*Hgn*Qwqh*0.001 $
FRML _DJR    lqh        = (Ywqh+siqal)/(Qwqh*Hgn)*1000 $


FRML _SJRD   HQqhw       = (1/dthqqh)*(1-0.38789)**(0.20000/(1-0.20000))
                           *((fYfqh/76032.83594)/1.37372)
                           *( ( ((uimqh*39781.26563)/(lqh*627.44708))
                                *(dthqqh/dtfkmqh) )
                              **(1-0.20000)
                              *(0.38789/(1-0.38789))**0.20000+1 )
                            **(0.20000/(1-0.20000))*627.44708 $
() -----------------------------------------------------
() qs-erhvervet
() -----------------------------------------------------
()
()
FRML _DJ_D   rpimqse      = 0.25*rpimqse(-1) + 0.75*(pimqs/pimqs(-1)-1) $
FRML _DJ_D   bfknmqs      = fKnmqs/fKmqs $
FRML _DJRD   uimqs       = bfknmqs*pimqs*(1-tsdsu*bivpm)/(1-tsdsu)
                           *((1-tsdsu)*iwlo+bfinmvqs-0.50*rpimqse) $
FRML _SJRD   fkmqsw      = (1/dtfkmqs)*0.82501**(0.40000/(1-0.40000))
                           *((fXqs/13841.24219)/1.89672)
                           *( ( ((lqs*28.74300)/(uimqs*89655.19531))
                                *(dtfkmqs/dthqqs) )
                              **(1-0.40000)
                              *((1-0.82501)/0.82501)**0.40000+1 )
                            **(0.40000/(1-0.40000))*89655.19531 $
FRML _GJ_D   fKmqsk      = fKmqs $
FRML _SJRDF  Dlog(fKmqs) = 0.20*Dlog(fKmqsw) + 0.20*Dlog(fKmqsw(-1))
                           + 0.20*Dlog(fKmqsw(-2)) + 0.20*Dlog(fKmqsw(-3))
                           + 0.20*Dlog(fKmqsw(-4)) $
FRML _DJRD   fImqs       = dif(fKmqs) + bfimvqs*fKmqs(-1) $
FRML _DJRD   fKnmqs       = fImqs + (1-bfinmvqs)*fKnmqs(-1) $

FRML _SJRD   HQqsw       = (1/dthqqs)*(1-0.82501)**(0.40000/(1-0.40000))
                            *((fXqs/13841.24219)/1.89672)
                            *( ( ((uimqs*89655.19531)/(lqs*28.74300))
                                 *(dthqqs/dtfkmqs) )
                               **(1-0.40000)
                               *(0.82501/(1-0.82501))**0.40000+1 )
                             **(0.40000/(1-0.40000))*28.74300 $
FRML _SJRDF  Dlog(HQqs)  = 0.65*(Dlog(HQqsw)-Dlog(Hgn)) + Dlog(Hgn)
                          + 0.20*(Dlog(HQqsw(-1))-Dlog(Hgn(-1)))
                          + 0.15*(Dlog(HQqsw(-2))-Dlog(Hgn(-2))) $
FRML _GJRD   Qqs        = HQqs/Hgn*1000 $
FRML _G      Qsqs        = bqsqs*Qqs $
FRML _I      Qwqs        = Qqs-Qsqs $
FRML _G      Ywqs        = lnak1*Hgn*Qwqs*0.001*klqs $
FRML _DJR    lqs        = (Ywqs+0.00*Siqam+0.00*Siqu+0.001*Siqab)
                           /(Qwqs*Hgn)*1000 $
() -----------------------------------------------------
() qt-erhvervet
() -----------------------------------------------------
()
FRML _DJ_D   rpimqte     = 0.25*rpimqte(-1) + 0.75*(pimqt/pimqt(-1)-1) $
FRML _DJ_D   bfknmqt     = fKnmqt /fKmqt $
FRML _DJRD   uimqt       = bfknmqt*pimqt*(1-tsdsu*bivpm)/(1-tsdsu)
                            *((1-tsdsu)*iwlo+bfinmvqt-0.50*rpimqte) $
FRML _SJRD   fkmqtw      = (1/dtfkmqt)*0.95254**(0.10058/(1-0.10058))
                           *((fYfqt/44800.38281)/0.95471)
                           *( ( ((lqt*251.71408)/(uimqt*68615.69531))
                                *(dtfkmqt/dthqqt) )
                              **(1-0.10058)
                              *((1-0.95254)/0.95254)**0.10058+1 )
                            **(0.10058/(1-0.10058))*68615.69531 $
FRML _SJRDF  Dlog(fKmqt) = 0.13749*Dlog(fKmqtw)
                           + 0.18911*(log(fKmqtw(-1))-log(fKmqt(-1)))
                           + rofKmqt
                           *( Dlog(fKmqt(-1))
                              -0.13749*Dlog(fKmqtw(-1))
                             -0.18911*(log(fKmqtw(-2))-log(fKmqt(-2))) ) $
FRML _GJ_D   fKmqtk      = fKmqt $
FRML _DJRD   fImqt       = dif(fKmqt) + bfimvqt*fKmqt(-1) $
```

```
FRML _DJRD   fKnmqt      = fImqt + (1-bfinmvqt)*fKnmqt(-1) $

FRML _SJRD   HQqtn        = (1/dthqqt)
                           *( (1/(1-0.95254))
                              *((fYfqt/44800.38281)/0.95471)
                              **(-(1/0.10058-1))
                              -(0.95254/(1-0.95254))
                              *(dtfkmqt*fKmqtk/68615.69531)**(-(1/0.10058-1)) )
                            **(-(1/(1/0.10058-1)))*251.71408 $
FRML _SJRDF  log(HQqt)    = 0.34115*(log(HQqtn)-log(Hgn))+log(Hgn)
                           + (1-0.34115+(-0.38217))
                           *(log(HQqtn(-1))-log(Hgn(-1)))
                           - (-0.38217)*(log(HQqtn(-2))-log(Hgn(-2))) +
                           rohqqt
                           *( log(HQqt(-1))
                              -( 0.34115*(log(HQqtn(-1))-log(Hgn(-1)))
                                 +(1-0.34115+(-0.38217))
                                 *(log(HQqtn(-2))-log(Hgn(-2)))-(-0.38217)
                                 *(log(HQqtn(-3))-log(Hgn(-3)))+log(Hgn(-1)) ) ) $
FRML _GJRD   Qqt     = HQqt/Hgn*1000 $
FRML _G      Qsqt         = bqsqt*Qqt $
FRML _I      Qwqt         = Qqt-Qsqt $
FRML _G      Ywqt         = lnak1*Hgn*Qwqt*0.001 $
FRML _DJR    lqt         = (Ywqt+siqal)/(Qwqt*Hgn)*1000 $


FRML _SJRD   HQqtw       = (1/dthqqt)*(1-0.95254)**(0.10058/(1-0.10058))
                           *((fYfqt/44800.38281)/0.95471)
                           *( ( ((uimqt*68615.69531)/(lqt*251.71408))
                                *(dthqqt/dtfkmqt) )
                              **(1-0.10058)
                              *(0.95254/(1-0.95254))**0.10058+1 )
                            **(0.10058/(1-0.10058))*251.71408 $
() ----------------------------------------------------
() qf-erhvervet
() ----------------------------------------------------
()
FRML _DJ_D   rpimqfe      = 0.25*rpimqfe(-1) + 0.75*(pimqf/pimqf(-1)-1) $
FRML _DJ_D   bfknmqf      = fKnmqf/fKmqf $
FRML _DJRD   uimqf       = bfknmqf*pimqf*(1-tsdsu*bivpm)/(1-tsdsu)
                           *((1-tsdsu)*iwlo+bfinmvqf-0.50*rpimqfe) $
FRML _SJRD   fkmqfw      = (fXqf/46763.26563)/0.35030/dtfkmqf*5636.15283 $
FRML _SJRDF  Dlog(fKmqf) = 0.20*Dlog(fKmqfw) + 0.20*Dlog(fKmqfw(-1))
                            + 0.20*Dlog(fKmqfw(-2)) + 0.20*Dlog(fKmqfw(-3))
                            + 0.20*Dlog(fKmqfw(-4)) $
FRML _DJRD   fImqf       = dif(fKmqf) + bfimvqf*fKmqf(-1) $
FRML _DJRD   fKnmqf       = fImqf + (1-bfinmvqf)*fKnmqf(-1) $

FRML _SJRD   HQqfw       = (fXqf/46763.26563)/1.36091/dthqqf*127.25789 $
FRML _SJRDF  Dlog(HQqf)   = 0.65*(Dlog(HQqfw)-Dlog(Hgn)) + Dlog(Hgn)
                           + 0.20*(Dlog(HQqfw(-1))-Dlog(Hgn(-1)))
                           + 0.15*(Dlog(HQqfw(-2))-Dlog(Hgn(-2))) $
FRML _GJRD   Qqf        = HQqf/Hgn*1000 $
FRML _G      Qsqf        = bqsqf*Qqf $
FRML _I      Qwqf        = Qqf-Qsqf $
FRML _G      Ywqf        = lnak1*Hgn*Qwqf*0.001 $
FRML _DJR    lqf       = (Ywqf+0.00*Siqam+0.01*Siqu+0.008*Siqab)
                           /(Qwqf*Hgn)*1000 $
() ----------------------------------------------------
() qq-erhvervet
() ----------------------------------------------------
()
FRML _DJ_D   rpimqqe     = 0.25*rpimqqe(-1) + 0.75*(pimqq/pimqq(-1)-1) $
FRML _DJ_D   bfknmqq     = fKnmqq /fKmqq $
FRML _DJRD   uimqq       = bfknmqq*pimqq*(1-tsdsu*bivpm)/(1-tsdsu)
                            *((1-tsdsu)*iwlo+bfinmvqq-0.50*rpimqqe) $
FRML _SJRD   fkmqqw      = (1/dtfkmqq)*0.46014**(0.40000/(1-0.40000))
                           *((fYfqq/106434.18750)/0.85514)
                           *( ( ((lqq*588.55164)/(uimqq*45941.41406))
                                *(dtfkmqq/dthqqq) )
                              **(1-0.40000)
                              *((1-0.46014)/0.46014)**0.40000+1 )
                            **(0.40000/(1-0.40000))*45941.41406 $
FRML _SJRDF  Dlog(fKmqq) = 0.12381*Dlog(fKmqqw)
                           + 0.32590*(log(fKmqqw(-1))-log(fKmqq(-1)))
                           + rofKmqq
                           *( Dlog(fKmqq(-1))
                              -0.12381*Dlog(fKmqqw(-1))
```

```
                              -0.32590*(log(fKmqqw(-2))-log(fKmqq(-2))) ) $
FRML _GJ_D   fKmqqk      = fKmqq $
FRML _DJRD   fImqq       = dif(fKmqq) + bfimvqq*fKmqq(-1) $
FRML _DJRD   fKnmqq      = fImqq + (1-bfinmvqq)*fKnmqq(-1) $

FRML _SJRD   HQqqn        = (1/dthqqq)
                           *( (1/(1-0.46014))
                              *((fYfqq/106434.18750)/0.85514)
                              **(-(1/0.40000-1))
                              -(0.46014/(1-0.46014))
                              *(dtfkmqq*fKmqqk/45941.41406)**(-(1/0.40000-1)) )
                            **(-(1/(1/0.40000-1)))*588.55164 $
FRML _SJRDF  log(HQqq)    = 0.35385*(log(HQqqn)-log(Hgn))+log(Hgn)
                           + (1-0.35385+(-0.22807))
                           *(log(HQqqn(-1))-log(Hgn(-1)))
                           - (-0.22807)*(log(HQqqn(-2))-log(Hgn(-2))) +
                           rohqqq
                           *( log(HQqq(-1))
                              -( 0.35385*(log(HQqqn(-1))-log(Hgn(-1)))
                                 +(1-0.35385+(-0.22807))
                                 *(log(HQqqn(-2))-log(Hgn(-2)))-(-0.22807)
                                 *(log(HQqqn(-3))-log(Hgn(-3)))+log(Hgn(-1)) ) ) $
FRML _GJRD   Qqq     = HQqq/Hgn*1000 $
FRML _G      Qsqq        = bqsqq*Qqq $
FRML _I      Qwqq        = Qqq-Qsqq $
FRML _G      Ywqq        = lnak1*Hgn*Qwqq*0.001 $
FRML _DJR    lqq         = (Ywqq+siqal)/(Qwqq*Hgn)*1000 $


FRML _SJRD   HQqqw       = (1/dthqqq)*(1-0.46014)**(0.40000/(1-0.40000))
                           *((fYfqq/106434.18750)/0.85514)
                           *( ( ((uimqq*45941.41406)/(lqq*588.55164))
                                *(dthqqq/dtfkmqq) )
                              **(1-0.40000)
                              *(0.46014/(1-0.46014))**0.40000+1 )
                            **(0.40000/(1-0.40000))*588.55164 $
```