$$c = c c 1 + c (1 - c 1) - c 2 (r - \pi - epsilonb)$$
(1)

$$i = ii1 + i(1 - i1) + i2q + epsilonq$$
 (2)

$$q = q1 r^{k} - (r - \pi - epsilonb) + q (1 - q1)$$
(3)

$$y = c \cdot ccy + i \cdot ciy + cvy \cdot v + epsilong$$

$$y = cpsip (calpha k + (1 - calpha) n + epsilona)$$
(5)

$$\pi - \pi \operatorname{cgammap} = (\pi - \pi \operatorname{cgammap}) \operatorname{pi1} - \operatorname{pi2} (100 \operatorname{epsilonp} - \operatorname{mc})$$

$$\tag{6}$$

$$mc = (1 - calpha) w + r^k calpha - epsilona$$
 (7)

$$\pi = \pi \, cgammaw + cbeta \, (\pi - \pi \, cgammaw) - w1 \, (comega \, u - 100 \, epsilonw) \tag{8}$$

$$comega u = w - (z + epsilons + comega e)$$

$$(9)$$

$$comega u^n = 100 epsilonw (10)$$

$$l = u + e \tag{11}$$

(4)

$$z = z \left(1 - cv\right) + \frac{cv}{1 - \frac{ch}{ctau}} \left(c - c\frac{ch}{ctau}\right) \tag{12}$$

$$\bar{k} = \bar{k}\,k1 + i\,\left(1 - k1\right) + epsilonq\,k2\tag{13}$$

$$k = v + \bar{k} \tag{14}$$

$$v = r^k \frac{1 - cpsi}{cpsi} \tag{15}$$

$$k = n + w - r^k \tag{16}$$

$$r = r \operatorname{crhointr} + (1 - \operatorname{crhointr}) (\pi \operatorname{crpi} + \operatorname{cry} y^{gap}) - \operatorname{epsilonr}$$

$$\tag{17}$$

$$0 = e1 \ (n - e) \tag{18}$$

$$cf = c1 cf + (1 - c1) cf - c2 (rf - epsilonb)$$
 (19)

$$invf = epsilonq + i1 invf + (1 - i1) invf + i2 qf$$

$$(20)$$

$$qf = q1 rkf - (rf - epsilonb) + (1 - q1) qf$$

$$(21)$$

```
yf = epsilong + ccy cf + ciy inv f + cvy v f
                                                                                                                               (22)
        yf = cpsip (epsilona + calpha kf + (1 - calpha) nf)
                                                                                                                               (23)
            0 = (1 - calpha) wf + calpha rkf - epsilona
                                                                                                                               (24)
                  wf = epsilons + zf + comeganf
                                                                                                                               (25)
          zf = (1 - cv) zf + \frac{cv}{1 - \frac{ch}{ctau}} \left( cf - \frac{ch}{ctau} cf \right)
                                                                                                                               (26)
          kbarf = epsilonq k2 + k1 kbarf + (1 - k1) inv f
                                                                                                                               (27)
                          kf = vf + kbarf
                                                                                                                               (28)
                         vf = \frac{1 - cpsi}{cpsi} \, rkf
                                                                                                                               (29)
                        kf = nf + wf - rkf
                                                                                                                               (30)
                          0 = e1 (nf - ef)
                                                                                                                               (31)
                           y^{gap} = y - yf
                                                                                                                               (32)
                  epsilonb = epsilonb \, crhob + etab
                                                                                                                               (33)
                                                                                                                               (34)
                  epsilonq = epsilonq crhoq + etaq
                                                                                                                               (35)
          epsilong = epsilong crhog + etag + crhoga etaa
                  epsilona = etaa + epsilona crhoa
                                                                                                                               (36)
  epsilonp = epsilonp crhop + etap - cmup AUX\_EXO\_LAG\_54\_0
                                                                                                                               (37)
                  epsilonr = epsilonr \, crhor + etar
                                                                                                                               (38)
                  epsilons = epsilons \, crhos + etas
                                                                                                                               (39)
epsilonw = epsilonw \ crhow + etaw - cmuw \ AUX\_EXO\_LAG\_56\_0
                                                                                                                               (40)
                      dyobs = ctaubar + cebar
                                                                                                                               (41)
                      dcobs = ctaubar + cebar
                                                                                                                               (42)
                      diobs = ctaubar + cebar \\
                                                                                                                               (43)
                         piobs = \pi + cpibar
                                                                                                                               (44)
                      dwobs - piobs = ctaubar
                                                                                                                               (45)
                            deobs=cebar
                                                                                                                               (46)
                          uobs = u + cubar
                                                                                                                               (47)
                         robs = 4 \, crbar + r \, 4
                                                                                                                               (48)
                                                                                                                               (49)
                             ryear = r4
piyear = \pi + \pi + AUX\_ENDO\_LAG\_2\_1 + AUX\_ENDO\_LAG\_2\_2
                                                                                                                               (50)
                    AUX\_ENDO\_LAG\_2\_1 = \pi
                                                                                                                               (51)
         AUX\_ENDO\_LAG\_2\_2 = AUX\_ENDO\_LAG\_2\_1
                                                                                                                               (52)
                   AUX\_EXO\_LAG\_54\_0 = etap
                                                                                                                               (53)
                   AUX\_EXO\_LAG\_56\_0 = etaw
                                                                                                                               (54)
```