

$$X_i(t, \omega) =$$

$$F_i(t - A_i(\omega)) \exp(-B_i \omega)$$

Using identity (for $\tau \geq 0$ that)

$$X_i(\tau, \omega_{0,i}) = RDD_i(\tau)$$

$$\text{then} \quad = F_i(\tau)$$

We get that if

$\tau = t - A_i(\omega) \geq 0$ then

$$X_i(t, \omega) = F_i(\tau) \exp(-B_i \omega)$$

$$= RDD_i(\tau) \exp(-B_i)$$

$$= RD_i(t - A_i(\omega)) \exp(-B_i)$$

When $\tau = t - A_i(\omega) < 0$

let $\omega' \in [\omega_{0,i}, \omega_{\infty,i}]$

be such that

$$X_i(0, \omega') = F_i(-A_i(\omega'))^x \exp(-B_i(\omega'))$$

where

$$-A_i(\omega') = t - A_i(\omega)$$

$$\underline{= C_i(w') = u}$$

In terms of a
recipe for

F in this case,
 $C_i(w) = -A_i(w)$

$$F_i(C_i(w')) = \exp(B_i(w')) X_i(w')$$

$$\leq F_i(u) = \exp(B_i(C_i^{-1}(u))) \times$$

$$X_i(0, C_i^{-1}(u))$$

~~def~~ So we have

that if $m < 0$ then
 $m = -1 \cdot 1 \cdot 1$

then

$$\begin{aligned} X_i(t, \omega) &= \bar{F}_i(t - A_i(\omega)) \\ &\quad \times \exp(-B_i(\omega)) \\ &= \exp(B_i(C_i^{-1}[t - A_i(\omega)])) \\ &\quad \times X_i(0, C_i^{-1}[t - A_i(\omega)]) \\ &\quad \times \exp(-B_i(\omega)) \end{aligned}$$

$$\begin{aligned} &= \exp[B_i(C_i^{-1}[t - A_i(\omega)] - B_i(\omega))] \\ &\quad \times X_i(0, C_i^{-1}[t - A_i(\omega)]) \end{aligned}$$

is this

$$\exp\left(-\int_{\omega} c_i^{-1}(t-A_i(\omega)) \frac{\mu(\omega')}{g(\omega')} d\omega'\right)$$

also

Anyway, in
general,

$$X_i(t, \omega) \approx \phi_i(t, \omega) \exp(\theta_i(\omega))$$

where

$$\theta_i(\omega) = R D D_i(t - A_i(\omega))$$

$$\varphi_i(t, \omega) = \begin{cases} 0 & \text{if } t - A_i(\omega) \geq 0 \\ \exp[B_i(C_i^{-1}[t - A_i(\omega)])] \\ \times X_i(0, C_i^{-1}[t - A_i(\omega)]) \end{cases}$$

where

$$A_i(\omega) = \int_{\omega_{0,i}}^{\omega} \frac{1}{g_i(\omega')} \cdot d\omega'$$

$$C_i(\omega) = -A_i(\omega)$$

$$C_i^{-1}(u) = \omega : C_i(\omega) = u$$

$$B_i(\omega) = \int_{\omega_{0,i}}^{\omega} \frac{f_i(\omega')}{g_i(\omega')} \cdot d\omega'$$

... Filw

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