Please find below the set of algebraic equations for the flattened Explicit CBD:

$$
\begin{cases}
var(b.O_1)^{[s+1]} &= var(a.I_C)^{[0]} \\
var(c.O_1)^{[s+1]} &= var(a.I_1)^{[s]} \\
var(e.O_1)^{[s+1]} &= var(d.I_C)^{[0]} \\
var(f.O_1)^{[s+1]} &= var(d.I_1)^{[s]} \\
var(d.O_1)^{[s+1]} &= var(h.I_1)^{[s+1]} \\
var(g.O_1)^{[s+1]} &= var(h.I_2)^{[s+1]} \\
var(a.O_1)^{[s+1]} &= var(c.I_1)^{[s+1]} \\
var(h.O_1)^{[s+1]} &= var(c.I_2)^{[s+1]} \\
var(a.O_1)^{[s+1]} &= var(i.I_1)^{[s+1]} \\
var(g.O_1)^{[s+1]} &= var(i.I_2)^{[s+1]} \\
var(i.O_1)^{[s+1]} &= var(j.I_1)^{[s+1]} \\
var(d.O_1)^{[s+1]} &= var(f.I_1)^{[s+1]} \\
var(j.O_1)^{[s+1]} &= var(f.I_2)^{[s+1]} \\
var(k.O_1)^{[s+1]} &= var(l.I_1)^{[s+1]} \\
var(m.O_1)^{[s+1]} &= var(l.I_2)^{[s+1]} \\
var(l.O_1)^{[s+1]} &= var(n.I_1)^{[s+1]} \\
var(g.O_1)^{[s+1]} &= var(m.I_1)^{[s+1]} \\
var(n.O_1)^{[s+1]} &= var(o.I_1)^{[s+1]} \\
var(c.O_1)^{[s+1]} &= var(p.I_1)^{[s+1]} \\
var(f.O_1)^{[s+1]} &= var(q.I_1)^{[s+1]} \\
var(s.s_i)^{[s+1]} &= var(r.I_1)^{[s+1]} \\
var(a.O_1)^{[s+1]} &= var(a.I_1)^{[s]} \\
var(a.O_1)^{[0]} &= var(a.I_C)^{[0]} \\
var(b.O_1)^{[s+1]} &= 0 \\
var(d.O_1)^{[s+1]} &= var(d.I_1)^{[s]} \\
var(d.O_1)^{[0]} &= var(d.I_C)^{[0]} \\
var(e.O_1)^{[s+1]} &= 1 \\
var(g.O_1)^{[s+1]} &= 0.001 \\
var(h.O_1)^{[s+1]} &= var(h.I_1)^{[s+1]} \times var(h.I_2)^{[s+1]} \\
var(c.O_1)^{[s+1]} &= var(c.I_1)^{[s+1]} + var(c.I_2)^{[s+1]} \\
var(i.O_1)^{[s+1]} &= var(i.I_1)^{[s+1]} \times var(i.I_2)^{[s+1]} \\
var(j.O_1)^{[s+1]} &= -var(j.I_1)^{[s+1]} \\
var(f.O_1)^{[s+1]} &= var(f.I_1)^{[s+1]} + var(f.I_2)^{[s+1]} \\
var(l.O_1)^{[s+1]} &= var(l.I_1)^{[s+1]} \times var(l.I_2)^{[s+1]} \\
var(n.O_1)^{[s+1]} &= sin(var(n.I_1)^{[s+1]})
\end{cases}
$$

Given:

- Block **x** is represented by variable **a**
- Block **x0** is represented by variable **b**
- Block **sumX** is represented by variable **c**
- Block **y** is represented by variable **d**
- Block **y0** is represented by variable **e**
- Block **sumY** is represented by variable **f**
- Block **D** is represented by variable **g**
- Block **mulX** is represented by variable **h**
- Block **mulY** is represented by variable **i**
- Block **negDX** is represented by variable **j**
- Block **sin.time** is represented by variable **k**
- Block **sin.prodSin** is represented by variable **l**
- Block **sin.Din** is represented by variable **m**
- Block **sin.sin** is represented by variable **n**
- Block **sin.sinOut** is represented by variable **o**
- Block **xi** is represented by variable **p**
- Block **yi** is represented by variable **q**
- Block **sinOut** is represented by variable **r**
- Block **sin** is represented by variable **s**