The phase diagram for the investment process is:

\[ S(t, x) = a + b(t) + c(t) \]

where:

\[ a = \frac{1}{2} \]

Now, we can adapt our results from 2.2.

We know that:

\[ \frac{d^2}{dt^2} \xi^2 = -2m + 2m \]

We need to find:

\[ \frac{d^2}{dt^2} \phi(t) \]

Actually:

\[ \phi(t) = \frac{1}{2} \]

Then:

\[ \frac{d^2}{dt^2} \phi(t) = -1 \]

So:

\[ \phi(t) = \frac{1}{2} \]
\[ (\tilde{g})^n = (x^2 \tilde{g} - y^2) + (x - 2)(y^2 - 4) \]

\[ = ((x^2 \tilde{g} - y^2) - (x - 2)(y^2 - 4)) \]

\[ = (x^2 \tilde{g} - 2y^2 - 4x + 8) \]

\[ = (x^2 \tilde{g} - 2y^2 - 4x + 8) \]

\[ \text{Therefore, we can have a closed form for} \]

\[ \Lambda(x, y, z) \]

\[ = n + (\tilde{g}^2)(x^2 \tilde{g} - 2y^2 - 4x + 8) \]