



```

if(load_enable)
{
    next_out = parallel_in;
}
else
{
    if(shift_enable)
    {
        if(SHIFT_MSB)
        {
            next_out = {output [NUM_BITS-2:0], 1'b1};
        }
        else
        {
            next_out = {1'b1, output [NUM_BITS-1:1]};
        }
    }
    else
    {
        next_out = output;
    }
}

```