We start by assuming that:

Alternatively:

We assume that:

iff and

where

This implies that:

Finally, we assume that:

To make this equivalent to our TSB prior, we numerically find that and . Therefore, I adopt the following prior:

where . We can set to make sure this is an informative prior.

#-------------------------------------------------------------------------------------

FCD’s

* For

For , then

For , then

For , then

* For
* For

This implies that

Notice that the sufficient statistics are and .

* For

This implies that

* For

This implies that: