

Model: ECOW Equation terms, first equation matrix row, and sample equation for the banked equation group - FTAEvar

FTA_{tm} FTA tariff default tariff OR tariff entered by user

FTA tariff	'FTA premium	User tariff
tm	!nt <0,!yy ,0)	+#
ALIVE	-	

constant +IF(!nt|<0,!yy|,0) +#

This is the final free trade area premium. Either the default or a user supplied variable can be used. If the user supplies a value, the default will not be used.

FTA_{xs} FTA exports

export supply	FTA supply
xs	s :ROWxs)
ALIVE	-

constant +SUMPRODUCT(USA_{ftm}:ROW_{ftm},USA_{xs}|:ROW_{xs}|)

FTA_{md} FTA imports

import supply	FTA demand
md	:ROWmd)
ALIVE	-

constant +SUMPRODUCT(USA_{ftm}:ROW_{ftm},USA_{md}|:ROW_{md}|)

FTA_{nt} FTA net trade

FTA net trade	+ exports	-imports
nt	+!xs	!md
ALIVE	-	-

constant +!xs| -!md|

FTA_{bx} FTA base exports

FTA base exports	sum base exports
bx	k :ROWbx)
ALIVE	-

constant +SUMPRODUCT(USA_{ftm}:ROW_{ftm},USA_{bx}|:ROW_{bx}|)

FTAbm FTA base imports

FTA base imports	sum base imports
bm	:ROWbm)
ALIVE	-

constant +SUMPRODUCT(USAftm:ROWftm,USAbm|:ROWbm|)

FTAcmm count FTA members

FTA count	sum cmm
cmm	n:ROWftm)
cmm	-

constant +SUM(USAftm:ROWftm)

FTAyy FTA tariff - lowest member tariff modified downward depending upon FTA trade balance

FTA tariff	min. wtd. FTA tar.
yy	+!bx +!bm)
ALIVE	-

The free trade area premium is less than the minimum tariffs of members. If FTA net trade is positive, it is set to 0 in the tm equation at the top of this page.

constant +(!bm|*!zz|)/(0.000001+!bx|+!bm|)

FTAzz minimum FTA tariff

tariff for FTA	MIN FTA tariff
zz	z :ROWzz)
ALIVE	-

constant +MIN(USAzz|:ROWzz|)