The global overturning circulation as estimated by ECCO version 4, release 2 is presented. This estimate clearly attributes all of the intermediate water exchange between the the Indo-Pacific sector and the Atlatnic to the warm route, and none to the cold route. In addition, the same estimate shows very little contribution from NADW to the formation of AABW, with the latter occurring primarily in the Indo-Pacfic sector. A theoretical model of the interbasin exchange of the meridional overturning circulation is presented confirming that in the present arrangement of wind-stress and continental configurations, the intermediate water exchange occurs through the warm route. Diagnostics of a suite of primitive equation computations show that the warm-route exchange flow is responsible for a substantial salinification of the Atlantic, illustrating that there is no need to advocate asymmetries in the evaporation-minus-precipitation to explain the observed saltiness of the surface Atlantic relative to the Indo-Pacific.