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Amy Schmidt* (aschmid9@masonlive.gmu.edu), Department of Mathematics, 4400 University Drive, MS: 3F2, Fairfax, VA 22030. *Fixed Rings: FIP, FCP, and Complete Rings of Quotients.*

Let $R \subset T$ be a unital extension of commutative rings. Let G be a subgroup of the automorphism group of a ring T such that R is G -invariant. We say a property of the extension $R \subset T$ is *invariant (under G)* if the extension of fixed rings $R^G \subset T^G$ has the property. We continue the investigation of determining such invariant properties. We consider the finite chain property (FCP) and finite intermediate algebra property (FIP) and related properties of ring extensions. We also determine that the fixed ring of the complete ring of quotients is the complete ring of quotients of the fixed ring, i.e., $Q(R)^G = Q(R^G)$ where G acts on R via automorphisms. (Received July 24, 2014)