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The weak Freese-Nation property (WFN) is an algebraic property of Boolean algebras that can be considered as a generalization of projectivity and hence of freeness. It turns out that under mild assumptions on the non-existence of certain large cardinals, CH implies that every complete c.c.c. Boolean algebra has the WFN.

On the other hand, assuming the consistency of Chang's Conjecture for  $\aleph_\omega$  together with GCH, we construct a model of set theory where GCH holds but no complete c.c.c. Boolean algebra of size  $\geq \aleph_\omega$  has the WFN. We also discuss a related result for Cohen extensions of models of GCH.

All the presented results are older joint work with Fuchino, Shelah and Soukup. (Received January 16, 2007)