Time-Consistently Undominated Policies

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Time inconsistency is a common feature of macroeconomic policy environments. It arises whenever individuals' economic decisions may be affected by their expectations of future policy choice. This gives the policymaker an *ex-ante* incentive to make promises about future policy, but an *ex-post* incentive to break them. Well-known examples include the design of capital taxation, of inflation targets, and of social insurance policy.

By definition, these are settings where a policy plan cannot be optimal from the perspective of every period. If the aim of the economist is to make normative policy recommendations, rather than positive predictions, this leaves two options. The first is to advocate a choice that is best from the perspective of just one period, and accept that outcomes will become less desirable as time goes by. The second is to find some weaker normative criterion that *can* be satisfied in every period, and to recommend policy on the basis of this.

The first approach dominates the normative policy design literature, but the recommendations that follow from it often have an implausible time-varying character. It would recommend, for instance, that central banks should target an inflation rate that varies in the number of years elapsed since their mandate was first devised. Dependence of policy on the seemingly arbitrary designation of an 'initial period' has been criticised by a number of authors.

The second approach is comparatively understudied, and the main purpose of our paper is to provide a new and appealing formalisation of it. Specifically, we define and characterise a set of 'undominated' policies, deliberately constructed to be larger than the set of optimal choices. A policy is dominated (a) if there is another policy that is strictly preferred to it in all current and future periods, or (b) if it can be compared to a particular subset of the alternatives in a time-consistent way, and is not found to be best in this subset.

Policies can be time-consistently undominated even when time-consistent optimality is not possible. We provide necessary and sufficient conditions for this to be true, and show that the resulting policies have a simple and intuitive character, across a range of examples. In a simple inflation bias problem, for instance, our approach motivates choosing the optimal constant inflation rate for all time periods. In a capital tax problem, it motivates satisfying the same simple efficiency-equity trade-off in all periods. Further examples are discussed in the text.