*Comparative Policy Assessment based on MVPF*

The MVPF measures the marginal value of an additional dollar spent on a policy—it asks the question: how do the welfare benefits accrued by implementing the policy compare to the costs of adopting that policy? These costs could be mechanical (e.g., the dollar value of a subsidy or cash transfer) and also the result of economic frictions brought about through policy implementation (e.g., behavioral changes that result in changes in labor force participation, tax revenue, etc.). From a normative standpoint, however, the MVPF is agnostic: it simply measures the ratio of benefits to costs and does not make affirmative statements about whether a policy is “worth it.”

If a policy is considered in isolation, then some threshold value summarizing society’s willingness to adopt the policy is all that is needed for policy decision-making. This threshold value could simply be a MVPF of 1 or, if society values some redistributive consequence of the policy, could be set at a value less than one. For example, Finkelstein, Hendren and Shepard (2018) make comparative assessments of health insurance subsidization policies by specifying a social welfare function over CRRA utility and a defined coefficient of risk aversion. This results in a MVPF benchmark of 0.2. But researchers do not necessarily have to take a firm stance on the curvature and structure of the social welfare function to define a decision-making benchmark. A value tied to an existing policy with strong support across a variety of ideological perspectives could also suffice. For instance, Finkelstein, Hendren and Shepard (2018) also consider a benchmark (0.88) based on the MVPF of the Earned Income Tax Credit (EITC)—a popular means-tested cash transfer program.[[1]](#footnote-1)

Often, however, policymakers must choose among *competing* policy alternatives. For example, the policy objective of increasing insurance coverage could be achieved by subsidizing the purchase of private plans, via expansion of means-tested public insurance programs, or via some hybrid approach such as a public program “buy-in.” An estimate of the MPVF could be constructed for each of these policies. So the question naturally becomes: how can we make relative comparisons between them?

Pairwise comparisons of the MVPF between these alternatives are not sufficient to fully catalogue the relative benefits of one policy over another. To see this, the figure below plots MVPF values for two “competing” policies (A and B). To facilitate exposition, “benefit” (W) is plotted on the X axis while “cost” (C) is plotted on the Y axis. In this setup, the slope of a line connecting the origin to each policy point is equivalent to the inverse of the MVPF for that policy.



The figure also defines a threshold parameter to guide assessments of whether a given policy yields a favorable MVPF relative to a defined benchmark. This threshold is conceptualized similarly to the benchmarks discussed above, but in this setup would take the value of the inverse of the MVPF of the benchmark (e.g., 1.13 for an EITC-based benchmark [MVPF=0.88]). Whatever value takes, any policy that lies below the benchmark line would be considered worth adopting from a societal perspective, while those above the line would not.

As seen in the Figure, both policies (A and B) have favorable MVPF relative to the benchmark. But even though policy B yields greater benefit and has a MVPF less than , we cannot conclude that policy B should be adopted over policy A. That is because a pairwise comparison of MVPFA and MVPFB does not consider the incremental costs and welfare gains from adopting B over A. That is, by implementing policy A we can obtain total benefit at cost . But to obtain an additional benefit of we must incur additional costs . These costs may not be worth it for the welfare gain received. The ratio of these two incremental changes, i.e., the slope of the line connecting A and B, is well above We can call this ratio the *incremental value of public funds (IVPF).*

It’s worth pausing for a minute to consider *why* two policies might have different MVPF values. In the case of a cash transfer, two policies with the same fiscal externality (FE) would have the same MVPF value (i.e., their points would overlap on the plot). But if the FE differs (e.g., there are different ways finance the subsidy, each with its own externality cost) then we would just want to choose the policy with the lowest externality. But in cases where the same ends could be achieved through different means (e.g., cash subsidy vs. expansion of in-kind benefits), different MVPFs will result. This is because the “benefits” cannot be simplified (via the envelope theorem) to a value of 1 in the numerator of the MVPF; a different “benefit” (W) could be realized depending on the design and economic incentives created by the specific policy under consideration. Similarly, if the two policies target slightly different populations, the projection of estimates through the efficient welfare weight may result in different MVPF values [TK-check accuracy].

In short, all that can be inferred from pairwise comparisons of MVPF values is that policy B does not dominate policy A (i.e., it does not achieve higher benefit at lower cost). This point is further illustrated in the figure below. Here, we consider three “versions” of policy B—each with the same MVPF (i.e., they all lie on the same line from the origin with slope (1/MVPFB). Here we see that only two (Bii and Biii) would pass a traditional cost-benefit test with benchmark . Indeed, we could even conceive of another policy (B0) that is above to the left of point A. This policy would “pass” a cost-benefit test relative to , but would clearly be dominated by policy A (since A would achieve higher benefit at lower cost).



1. Similarly, the origin of the often-used $50,000 per quality-adjusted life year (QALY) threshold used in health technology assessments has been traced, in part, to the incremental cost effectiveness ratio for hemodialysis for end-stage renal disease—an explicit disease-based criterion used to determine Medicare eligibility for nonelderly adults in the United States (Grosse 2008; Neumann, Cohen and Weinstein 2014). [↑](#footnote-ref-1)