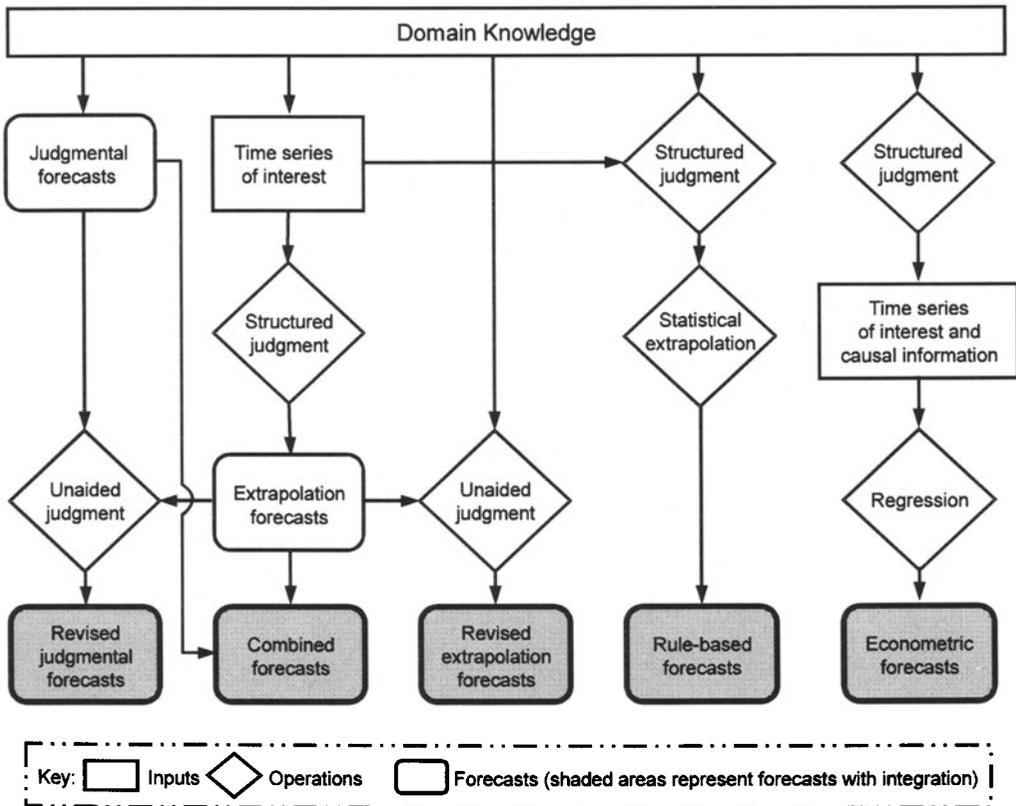


INTEGRATING, ADJUSTING,  
AND COMBINING



When forecasters expect changes, extrapolation can be inaccurate. On the other hand, judgment may lead to biased forecasts, such as when managers are enthusiastic about sales for the next quarter. In such cases, integrating judgment and quantitative approaches seems sensible.

There are many ways to do this. The above exhibit shows five ways that judgment based on domain knowledge can be integrated with quantitative methods.

This section examines revised judgmental forecasts, combined forecasts, and revised extrapolation forecasts. (Rule-

based forecasts are discussed in Section 9 and econometric forecasts in Section 11.)

When experts have useful knowledge to contribute, they can use their knowledge to revise earlier judgments, as described by Richard Webby of Telcordia Technologies and Marcus O'Connor and Michael Lawrence from the University of New South Wales in "Judgmental Time-Series Forecasting Using Domain Knowledge." They examine revised judgmental forecasts.

Alternatively, analysts can adjust extrapolations, as Nada Sanders from Wright State and Larry Ritzman from Boston College describe in "Judgmental Adjustment of Statistical Forecasts." Businesses

often do this. Under the right conditions, adjusted extrapolations can lead to more accurate forecasts than pure extrapolation. Often, however, such adjustments harm accuracy because managers impose their biases. Sanders and Wright suggest that when adjustments are used, the adjustment procedure should be structured.

"Combining Forecasts" by J. Scott Armstrong describes procedures that can be used when you have no domain knowledge. You can also modify combining to deal with cases in which you have domain knowledge. The principles include such things as using mechanical rather than subjective weightings.

---