Figure 4.2. Emission Forecasts

(Gigatons of carbon dioxide equivalent per year)

Emission forecasts cover a wide range of potential scenarios and outcomes, ranging from rapid output growth with developments of new energy technologies (the A1 scenario), less regional development convergence (A2), rapid shifts toward information- and services-based economies (B1), and fewer technological improvements (B2). All these scenarios are considered equally plausible, with no probabilities assigned to them. Even within each type of scenario, there is a wide range of emission projections (not shown), typically diverging by hundreds of percentage points by 2100.

Sources: EDGAR-HYDE 1.4 database; IPCC (2007); Netherlands Environmental Assessment Agency; Olivier and Berdowski (2001); Van Aardenne and others (2001); and IMF staff calculations.

Global greenhouse gas emissions for 1970–2000 and projected baseline emissions for 2030 and 2100 are from the IPCC’s Special Report on Emissions Scenarios (SRES) and post-SRES literature. The figure shows emissions from the six illustrative SRES scenarios.