Known Confounders Known Propensity: MSE vs Scores 0.70 0.60 Best: TLearner Best: DomainAdaptationLearner 0.65 0.55 0.60 U.50 Norm 0.45 0.45 0.40 0.55 Score 0.50 0.45 0.35 0.40 0.30 0.35 10-2 10-1 10-2 10^{-1} 10-3 10° 10^{0} 10^{1} MSE MSE 1.0 1.0 0.8 8.0 Probabilistic Erupt .0 .7 .9 0.6 Score 0.4 0.2 0.2 0.0 + 0.0 0.0 + 0.0 0.2 0.2 0.8 0.8 0.4 0.4 0.6 0.6 1.0 1.0 MSE MSE 1.0 1.0 8.0 8.0 0.6 CODEC Score 0.4 0.4 0.2 0.2 0.0 + 0.0 0.0 + 0.0 0.2 0.8 0.2 0.4 0.6 0.4 0.6 0.8 1.0 1.0 MSE MSE Best: TLearner Best: TLearner 0.04 0.04 0.02 Policy Risk Score 0.00 -0.00 -0.02-0.02 -0.04-0.0410-2 10⁻³ 10-2 10^{-1} 10° 10-1 10⁰ 10^{1} MSE Best: TLearner Best: DomainAdaptationLearner 0.98 0.99 0.96 Score 0.98 0.94 0.92 0.97 0.90 0.96 88.0 10-2 10° 10-2 10-1 10° MSE 0.45 Best: TLearner Best: Dummy 0.40 Energy Distance 0.30 Score 0.20 10-3 10-2 10° 10-1 10^{-1} 10⁰ 10^{1} MSE MSE 8.0 Best: DomainAdaptationLearner Best: Dummy 0.7 0.6 Score 0.5 0.3 10-2 10^{-1} 10^{-1} 10^{-3} 10-2 10⁰ 10^{0} 10^{1} MSE MSE TransformedOutcome ◀ SparseLinearDML DomainAdaptationLearner TLearner CausalForestDML ForestDRLearner **★** SLearner XLearner LinearDML