We show that foreign capital liberalization reduces capital misallocation and increases aggregate productivity in India. The staggered liberalization of access to foreign capital across disaggregated industries allows us to identify changes in firms' input wedges, overcoming major challenges in the measurement of the effects of changing misallocation. For domestic firms with initially high marginal revenue products of capital (MRPK), liberalization increases revenues by 23%, physical capital by 53%, wage bills by 28%, and reduces MRPK by 33% relative to low MRPK firms. There are no effects on low MRPK firms. The effects of liberalization are largest in areas with less developed local banking sectors, indicating that foreign capital partially substitutes for an efficient banking sector. Finally, we develop a novel method to use natural experiments to bind the effect of changes in misallocation on treated industries' aggregate productivity. Treated industries' Solow residual increases by 3-16%.