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Petroleum consumption and economic growth relationship: Evidence from the Indian states**Seema Narayan¹, Thai-Ha Le², Badri Narayan Rath³ and Nadia Doytch^{4,5}**¹RMIT University, Australia²RMIT University, Vietnam³Indian Institute of Technology Hyderabad, India⁴City University of New York, USA⁵Ateneo de Manila University, Philippines

This paper reveals that over the period 1985 to 2013, the richer states of India saw a prevalence of the feedback hypothesis between real GDP growth and petroleum consumption in the long-run and the short-run. Over the short-term, the (major) 23 Indian states panels show support for the conservative hypothesis. For the panels comprising low and middle income Indian states, while we are able to show significant bidirectional effects, none of the results resonate with the standard definition of the feedback hypothesis that energy consumption increases economic growth which in turn encourages growth in energy demand. Instead, we discover that for the middle and low income states, past higher petroleum consumption can in fact deteriorate economic activity in the short- and long-run. Additionally, for the low income states of India, higher economic growth predicts a fall in petroleum demand.

seema.narayan@rmit.edu.au