

Structural Transformation Options of the Saudi Economy under Constraint of Depressed World Oil Prices

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Economies depending on oil exports face a critical development issue as climate policy implementation would cause global oil demand and prices to decline. Our research aims to provide new insights about economic diversification options of the Kingdom of Saudi Arabia (KSA) in response to rapid global climate action inducing depressed oil price prospects. To do so, we extend the compact model of Soummane et al. (2019) into a multi-sectoral framework with explicit representation of the secondary distribution of income and the consecutive debt accumulation. We build structural change scenarios that reflect the KSA's Nationally Determined Contribution (NDC) to global climate action in addition to its overarching Vision 2030 economic orientation programme.

Our investigation maps two polar diversification strategies: *Continuity* of the expansion of energy-intensive industries (minerals, petrochemical, and cement), with extended public support in the form of low regulated energy prices; Alternatively, *Transformation* via a structural shift towards low-carbon activities, namely services (tourism and financial services) and manufacturing, which allows considering the gradual adjustment of domestic energy prices and complementary fiscal reforms. In both scenarios, structural change hangs on implicit sets of public policies that impulse export boosts.

Over its projection horizon to 2030, our numerical modelling associates the proactive diversification strategy of *Transformation* toward non-energy-intensive sectors and fiscal reforms with higher growth and lower unemployment than *Continuity* of expansion of energy-intensive industries. By structural change and through reforms of energy prices, *Transformation* succeeds in containing domestic energy consumptions, whereas *Continuity* inflates them significantly beyond real economic growth. Besides, the energy-price increases of *Transformation* induce partial decarbonization of energy supply that leads to stabilization of Saudi CO₂ emissions, ending at a level largely below that of *Continuity* emissions. Lastly, through cuts in energy subsidies and gradual fiscal reforms, *Transformation* considerably improves public budget outlooks by restoring surpluses from 2025 on, and succeeds in maintaining a creditor position of the government net debt throughout the projection horizon. In this regard, *Continuity* proves a dead-end by failing to hedge against the IEA-projected 2025 downturn of the international price of oil associated with the global peak in oil demand under its Sustainable Development Scenario, thus inducing substantial public deficits and the consecutive accumulation of a net public debt ultimately challenging the sustainability of the *Continuity* oil-driven development model.

Our analysis informs current domestic debates with high policy relevance. Our findings demonstrate the potential economic, social, and environmental benefits to Saudi Arabia of a more diversified economy in the context of global climate action depressing the oil price.

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