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Using Input-output Tables to Measure the Potential for Service-Led Development in Formerly Transition Economies in Central-West Asia.

Much has been said about key features of countries that moved from middle-income to high-income status towards the end of the 20th century. Two features have been stressed in the literature: the need for economic diversification, which for manufacturing is achieved through diversification of the export product space; (Hausmann and Hidalgo, 2011), but also, the importance of developing a strong manufacturing base, as measured by the share of employment in manufacturing to total employment. Two recent phenomena have occurred which have some development practitioners 'worried' that current middle-income and transition economies may not quickly join the club of developed countries: (i) so-called 'premature deindustrialization' in which the manufacturing employment share is peaking earlier for their level of development and at much lower shares (for example, Rodrick, 2017); and (ii) the development of mostly domestic-origin (but possibly foreign-financed) high-tech services sectors while' skipping' the stage of greater diversification of the manufacturing export base.

This paper seeks to find out to what extent these 'worries' are based on the mismeasurement of services productivity and the contribution of non-tradable services to manufacturing. It somewhat dispels the myth that there is something 'special' about diversification of the manufacturing processes that needs to be replicated for an economy to increase its wealth. New studies using firm-level data for mostly European countries (Crozet and Milet, 2015; Bernard et.al, 2017) and for developing Asia and OECD (Ablaza and Mercer-Blackman (2018) and Miroudot and Cadestin (2017) have found that when the value-added contribution of non-tradable services to the production and exports of goods is properly accounted for, services become critical for a knowledge-based economy. Indeed, the tighter the production links of business services to manufacturing, the more developed the country. However, their contribution to primary exports is not properly accounted for. Kazakhstan, perhaps the best example, has a fairly well-developed oil and gas services sector and the potential to further develop transport and logistics sectors and agricultural research and development, yet traditional indicators that do not account for the role of hi-tech services sectors, considered 'unproductive', with calls to diversify into manufacturing. But some economies are proving that service-led development is viable. Atakhanova (2018) suggests that Kazakhstan it is much more diversified if the contribution of intermediate sectors such as oilfield services are properly accounted for. While still at small scale, the examples of wealthy economies such as Hong Kong, China and Abu Dhabi, UAE 'skipping' the manufacturing stage of development present some

interesting alternatives.

Methodology:

The ADB has created a rich and unique input-output-based global dataset known as the Multi-Regional Input Output Table (MRIOT), from which a host of global value chain indicators are derived (ADB 2015 describes methodology). From the 62 countries included in the MRIOT, currently only Kazakhstan, Kyrgyz Republic and Pakistan are from central Asia, with plans to add Uzbekistan and more countries by mid-2019. Russia is included in the dataset.

This paper will use the new MRIOT data to measure two innovative features of economic development:

1.   The degree of economic diversification of these economies --which accounts for the increasingly important role of domestic services--using the input-output-based methodology described in Mercer-Blackman et. Al., (2016), which assigns a large score to sectors that have a high output multiplier and are linked to many different sectors. For Bangladesh, it showed that transport repair of machinery and equipment and other business services are key to economic development. This is based on work by Bartelme et. Al. (2016) that patterns of input-output links can explain a lot about development

2.   The degree of 'servicification' of manufacturing (such as food processing and metallurgy, among other examples). This can be substantial, even when the share of employment in the manufacturing sector is small. We measure the direct and indirect contribution of the services sectors to manufacturing productivity using the MRIOT.

We may find different results for some of the countries in the study, but we can compare with OECD countries as well as economies in developing Asia. Recent work (IMF (2018a), Miroudot and Cadestin (2017)) also find that once international production processes are characterized through global value chains, then the contribution of hi-tech services, particularly business and financial services, is much more important. Moreover, the contribution of domestic services is actually quite significant for many emerging markets. This phenomenon will continue to increase with the digitization of manufacturing (IMF, 2018b). Moreover, we show how national accounts are not able to completely account for the contribution of services to the productivity of manufacturing.