The Long Shadow of Informality

Policy Brief

Chapter 3: Growing Apart or Moving Together? Synchronization of Informal- and Formal-Economy Business Cycles

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Formal-economy output swings cause output swings in the same direction, albeit more muted, in the informal economy. In contrast, informal employment is largely unresponsive to output movements in both the formal and informal economy. As such, the informal economy dampens downturns but also holds back recoveries.

The informal economy as a dampener of business cycles. Historically, activity in the informal economy has dampened downturns and held back recoveries. Informal-economy output moves in synch with formal-economy output, but in a more muted manner. Informal-economy employment, meanwhile, is largely unresponsive to formal-economy business cycles swings (**figure 1**). As a result, the share of informal output in official GDP and the share of informal employment in total employment rise during downturns and fall during expansions.

Coincidence of formal and informal business cycle phases. Business cycle turning points in the formal and informal economies largely coincide. In more than 90 percent of country-year pairs, formal and informal output are in the same business cycle phase. In contrast, such a coincidence is less pronounced for employment than for output, with informal employment being in the same phase as formal output in about one-half of country-year pairs.
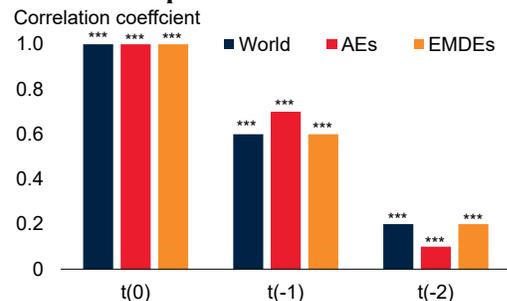
Direction of causality: From formal to informal economy. An instrumental variable estimation suggests that the direction of causality runs from business cycle swings in the formal economy to fluctuations in the informal economy. Specifically, a 1 percent increase in formal-economy output raises informal-economy output by 0.4-0.8 percent one year later. Such a causal impact does not materialize in informal employment, which is largely unresponsive to formal-economy fluctuations. This lack of impact is consistent with informal labor markets adjusting to economic shocks through changes in wages or working hours rather than employment status.

Policy implications. Widespread informality may, once again, hold back the recovery from last year's global recession that is currently underway in many countries. This adds urgency to the need for policies to address the challenges associated with informality (see Ohnsorge and Yu 2021).
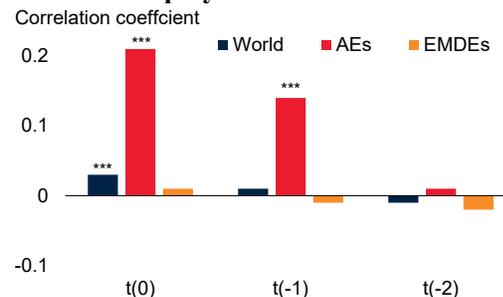
Figure 1. Formal and informal economy business cycles

Informal-economy output is positively correlated with formal-economy output, but not with informal employment in EMDEs. In more than 90 percent of country-year pairs, formal and informal output are in the same business cycle phase. In contrast, in only one-half of country-year pairs, informal employment is in the same phase as formal output. A 1 percent increase in formal economy output raises informal output by 0.4-0.8 percent one year later but does not significantly affect informal employment.
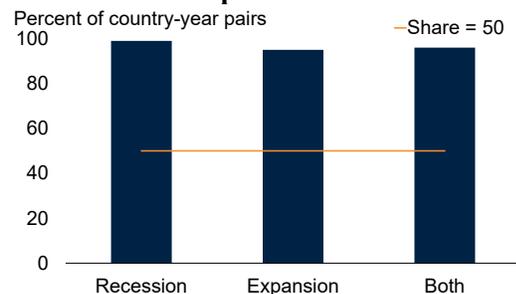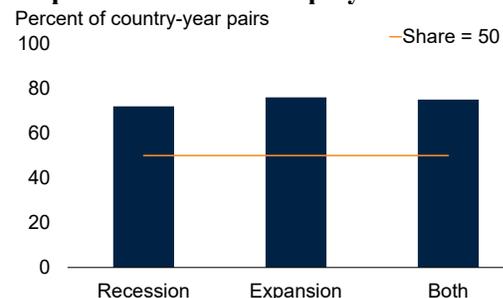
A. Correlation between formal output and informal output

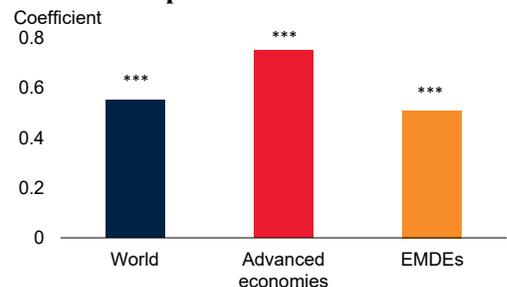**B. Correlation between formal output and informal employment**

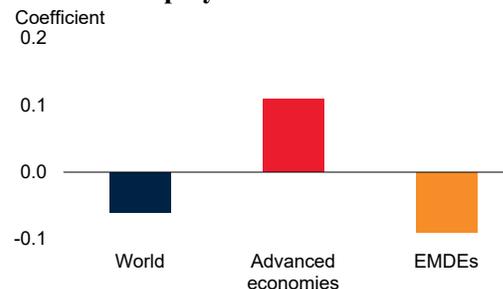**C. Coincidence of business cycle phases: Formal and informal output**

D. Coincidence of business cycle phases: Formal output and informal employment

E. Impact of formal output fluctuations on informal output

F. Impact of formal output fluctuations on informal employment

Sources: Elgin et al. (2021a); Penn World Table 9.1; World Bank.

Note: Data are for 1990-2018. AEs = advanced economies; EMDEs = emerging market and developing economies. Informal output is proxied by dynamic general equilibrium model-based estimates. Informal employment is proxied by self-employment. Formal output is proxied by official GDP. *** denotes 10 percent significance.

A.-B. Each bars shows the correlation between the cyclical components of formal-economy output (in logs, of year t(-2), t(-1) and t(0)) and the cyclical components of informal-economy output (A; in logs) and informal employment (B; in logs) of year t(0). C-D. Recessions are the periods from peak to trough, while expansions are the periods from trough to peak (Claessens, Kose, and Terrones 2012). Trough and peaks are identified as in Elgin et al. (2021b), where the Bry and Boschan (1971) method is used to identify turning points. Bars show the percent of country-year pairs where formal output and informal output (in C; and informal employment in D) are in the same business cycle phases (that is, both are in recession, or in expansions, or in either cases, labelled as "both"). E-F. Government consumption and trade-related terms (proxied by terms of trade and exports) are included as instrumental variables (IVs) to explain the variation in formal output (proxied by official GDP). Bars show estimated coefficients when informal output (E; informal employment in F) are used as the dependent variable. See annex 3C in Elgin et al. (2021a) for details.