



The Role of Capital Accumulation, Adjustment and Structural Change for Economic Take-Off: Empirical Evidence from African Growth Episodes

JEAN-CLAUDE BERTHÉLEMY

University of Paris, 1 Panthéon-Sorbonne, France

and

LUDVIG SÖDERLING *

OECD Development Centre, Paris, France

Summary. — In this article, we analyze extended periods of growth in Africa based on panel estimations from 27 African countries during 1960–96. Our main conclusion is that sustainable growth needs to be based on a balanced mix of capital accumulation, macroeconomic adjustment and structural change. In addition to more commonly used determinants of total factor productivity (TFP), we construct a measure for the effect of labor reallocation as well as an index of economic diversification and estimate the impact of the latter on long-term growth. Further we propose a framework for the analysis of extended growth periods, in view of assessing their sustainability. © 2001 Elsevier Science Ltd. All rights reserved.

Key words — African economic growth, total factor productivity, diversification and structural change, investment

1. INTRODUCTION

The good economic performers of the 1960s, 1970s and early 1980s in Africa turned out to be disappointments in nearly all cases, in large part due to increasing inefficiencies bringing growth and investment to a halt. By contrast, the recent improvement in the economic performance in several African countries has been fuelled by the removal of market distortions and to a smaller extent by structural change, while a significant progress in terms of higher investment rates has been absent (see, e.g., Fischer, Hernández-Catá, & Khan, 1998). What can be learned from the past and what does a detailed analysis of the present tell us about the future? The experience from emerging economies in East Asia suggests that capital accumulation is more important than total factor productivity (TFP) gains in the economic take-off process. The role of TFP gains cannot, however, be ignored. Low levels of productivity may constitute a disincentive to invest or lead

to financial difficulties, which may hamper growth for an extended period of time. This study indicates that while earlier attempts to economic take-off failed largely due to low productivity levels, the current ones exhibit productivity gains, but in most instances without a significant increase in investment rates as yet. The only counterexample in our sample of

* This paper was produced within the context of the OECD Development Centre research project on “Emerging Africa.” Generous financial support by the Belgium and Swiss Governments is gratefully acknowledged. Opinions expressed in this paper are the sole responsibility of the authors. Valuable comments by Arne Bigsten, David Coe, Sébastien Dessus, Andrea Goldstein, Patrick Guillaumont, Sylviane Guillaumont, Clark Leith, Tony Killick, Katja Michaelowa, David O’Connor, Christine Richaud, Akiko Suwa, Aristomene Varoudakis, and an anonymous referee on earlier versions are also gratefully acknowledged. Final revision accepted: 22 August 2000.

countries is Botswana, which has enjoyed longstanding growth performance since the 1960s. This contrasts with the experience of successful adjusters elsewhere such as Asian emerging economies or Chile, which reaped productivity gains from its economic reform policy in the late 1970s and in the 1980s, but improved investment performances only later on.¹ This suggests that the adjustment process is not completed, perhaps because it takes a long time before investors consider that the adjustment is irreversible.

Rapid TFP growth can be explained in such poor, small and moderately open economies by two sets of arguments. First, productivity gains can be achieved at the aggregate level through the implementation of a successful adjustment policy: if macroeconomic disorder and waste can be reduced, this will undoubtedly improve economic growth performance. But such TFP gains cannot be sustained beyond a point where the economy comes close to efficient macroeconomic management. Second, improved productivity can result from structural changes, which induce allocation of factors to new, more productive, activities. As an example, Lucas (1993) argued that the creation of the "Asian Miracles" relied on structural changes leading to the production of increasingly sophisticated product mixes. We maintain that if TFP gains are predominantly of the former kind, growth is not sustainable without an increase in savings and investment rates. On the other hand, TFP gains through structural change are not likely to occur in the absence of significant investments. By consequence, it appears difficult to maintain a sustainable growth process in the absence of a balanced mix of capital accumulation and structural change, while adjusting macroeconomic policies are necessary in order to keep distortions at the lowest possible level. We further propose a framework for investigation of this issue for African economies.

The analysis in this article is based on a panel data set of 27 African economies for which data have been assembled for 1960–96 (see Appendix A for details on the data sources). We study past and current extended periods of strong growth in Africa. The objective is two-fold: we try to explain why growth ended in some cases and we attempt to assess the sustainability of the current periods. Both objectives are pursued in a context of determining the role of capital accumulation *versus* TFP gains in the growth process.

The study is organized as follows: The following section describes our definition of extended growth periods, and lists the countries and periods which qualify. Section 3 discusses the analytical framework. In Section 4, we provide estimated results of the production function. Section 5 discusses the growth accounting that can be obtained from this equation for our sample of 14 African extended growth episodes. Section 6 analyzes the sources of TFP growth. Section 7 completes the picture through an analysis of savings and investment behaviors and likely future performances. Section 8 concludes the paper.

2. SELECTION OF FAST GROWTH EPISODES SAMPLE

There have been several examples of sustained rapid growth in Africa during the studied period 1960–96. As mentioned above, the aim of this study is to make a comparative study of these extended growth periods. We define an extended period of strong growth as an uninterrupted period of 10 years or more, during which time the five-year moving average of annual GDP growth exceeds 3.5%. By using a sufficiently long period of time, we exclude countries experiencing transitory surges in growth due to favorable external factors, such as a temporary improvement in the terms of trade or increased demand due to the economic cycles in the global economy. We use a five-year moving average as opposed to annual growth rates for similar reasons. This way we avoid having to exclude strong performers, who experience a temporary rupture in their growth record. The only exception to this definition is that we accept countries with a strong growth record which continues beyond 1996, even if by 1996 this growth period was one or two years short of the 10-year cut-off requirement. This exception is applicable only to Uganda and Mozambique. Once the countries have been selected, the start of the growth period is considered to be the first year (included in the five-year average) for which GDP growth exceeded 3.5%. Similarly, for the interrupted growth experiences, the period is considered to end with the first year of growth inferior to 3.5%, within the last five-year average. Table 1 summarizes all eligible growth periods, selected in a large sample of 44 African countries according to the definition described above.

متن کامل مقاله

دریافت فوری ←

ISIArticles

مرجع مقالات تخصصی ایران

- ✓ امکان دانلود نسخه تمام متن مقالات انگلیسی
- ✓ امکان دانلود نسخه ترجمه شده مقالات
- ✓ پذیرش سفارش ترجمه تخصصی
- ✓ امکان جستجو در آرشیو جامعی از صدها موضوع و هزاران مقاله
- ✓ امکان دانلود رایگان ۲ صفحه اول هر مقاله
- ✓ امکان پرداخت اینترنتی با کلیه کارت های عضو شتاب
- ✓ دانلود فوری مقاله پس از پرداخت آنلاین
- ✓ پشتیبانی کامل خرید با بهره مندی از سیستم هوشمند رهگیری سفارشات