

# POLICY BRIEF

GLOBALIZATION, ADJUSTMENT AND THE CHALLENGE OF INCLUSIVE GROWTH

Number 1

ISSN # 2094-3342



De La Salle University

**AKI**

Angelo King Institute  
for Economic and Business Studies



## DO GOOD THINGS COME OUT AFTER RECESSIONS? THE PRODUCTIVITY-BUSINESS CYCLE INTERACTION

### INTRODUCTION

For the past two decades, the Philippines has endured a wave of recessions, events that technically represent fluctuations in economic activity. While some of these recessions have been shallow, resulting in minor deviations from where our economy should be, some have been deep and devastating like the ones that occurred during the last years of the Marcos regime.

In academic and policy circles, lackluster productivity performance, the boom-bust cycle character of Philippine growth performance, and the disturbingly anemic investment rate, though heavily documented, continue to provoke widespread interest.

However, while recessions differ in causes, severity, and duration of impact, many seem to be unaware of the plausibility that links do exist between economic downturns and aggregate productivity. Understanding the nature of the interaction between the two has significant policy implications.

This policy brief elucidates on the following questions:

- Do good things, such as retooling or reorganization, really come out after recessions and contribute towards significant improvements in productivity?

- How do we statistically measure the impact of recessions or negative economic shocks on productivity?
- Do technological improvements result in positive changes in employment or are they prejudicial to labor?
- In view of fluctuations and uncertainty in the economic environment brought about by intensified competition, how can we explain investment behavior?

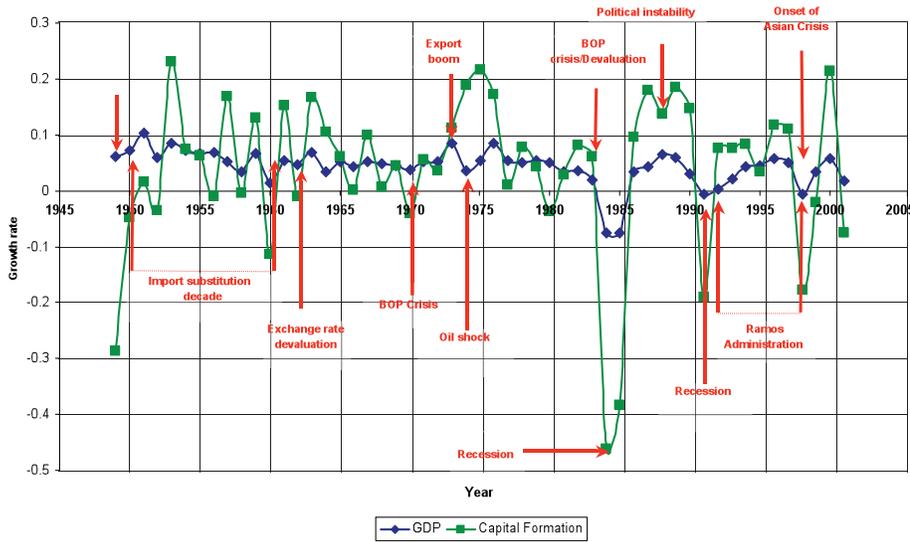
This brief heavily borrows from the research of Alba and Dacuycuy (2009) and other notable researches.

### STYLIZED FACTS

To provide proper context, we enumerate pertinent facts on key macroeconomic data series against the aggregate cycle. We also divide the macroeconomic history into two periods, the pre-1980 and post-1980, since it is in the latter period that many trade and other economic reforms have taken place. Figure 1 highlights the growth

Written by MICHAEL M. ALBA and  
LAWRENCE B. DACUYCUI  
Department of Economics  
De La Salle University

Figure 1: Growth Rates of GDP and Capital Formation



performance of output and investments.

Output and investment were less volatile during the pre-1980s and became more volatile during the post-1980s. During the post-1980 period, trade liberalization has been intensified, thereby opening much of the economy to competition. Within a macroeconomic environment beset with instability, investment behavior has been expectedly conservative.

Productivity is pro-cyclical relative to output fluctuations. This means that during downturns, productivity growth slows down. However, when we examine total factor productivity growth (TFPG) further, it was much more volatile in the pre-‘80s despite the prevalence of reforms in the post-‘80s. What does this mean?

While low volatility has been the norm, the mean TFPG in the post-‘80s has been really low. This implies that not much technological progress has been going on due to several plausible reasons, among

which, the destruction/degradation of capital during recessionary years and the anemic performance in replacing depreciated capital through sustained investment spending.

The boom-bust cycle has definitely reduced the investment drive as it spawned uncertainties. Even after engaging in trade and market reforms, TFPG has not increased. The main virtue of trade liberalization is that competition will be intensified, thereby increasing productivity. Despite this, TFPG has been dismal; implying that a largely negative reaction overwhelmed what should have been a positive impact.

In terms of employment, industrial employment is negatively correlated with agricultural and service employment. While the industrial sector remains significant, its contribution to employment generation has been consistently disappointing. Labor is being absorbed by agriculture and service. Many see this as a reversal of what should be the case. The manufacturing sector should have been the principal employment driver, which has been the consistent feature of economic development in some successful Asian countries.

## BUSINESS CYCLES AND PRODUCTIVITY: HOW ARE THEY LINKED

Several views explain the business cycle-productivity interaction. From a historical perspective, it was Schumpeter who first conjectured that recessions provide an opportunity for the economy to adjust. The manner of adjustment has been the focal point of research. Other authors, notably Muscatelli and Malley (1999) presented explanations. First, the opportunity cost

implies that firms, due to dampened economic conditions, may choose to invest in organizational capital. This highlights negative complementarities among output, production-related activities, and productivity-enhancing activities. Second, learning by doing dominates when recessions lead to significant retrenchment in the workforce, that is, firms adjust not by devoting more resources to productivity-enhancing activities.

Utilizing a structural macroeconomic model and implemented within the structural vector autoregression (SVAR) environment, the Muscatelli and Malley framework relies on the notion of long-run impact of employment shocks that usually occur during recessions. This can be understood better by interpreting that a recession, when taken as a temporary negative shock, will have a positive long-run effect on productivity. This implies that gains in productivity are realized by investing in organizational capital that will benefit the firm in the form of a more dynamic organization. This framework provides preliminary answers to the questions concerning the productivity-business cycle interaction and its relevance to macroeconomic policy.

To address another important policy question, that is, whether shocks to TFPG are indeed translated into employment gains or not, we resort to another macroeconomic model. As in Malley and Muscatelli (1997), there are two effects. Essentially, what we are interested in is whether positive technology shocks to total productivity growth lead to positive long-run employment effects. Again, the framework makes use of structural vector autoregression models.

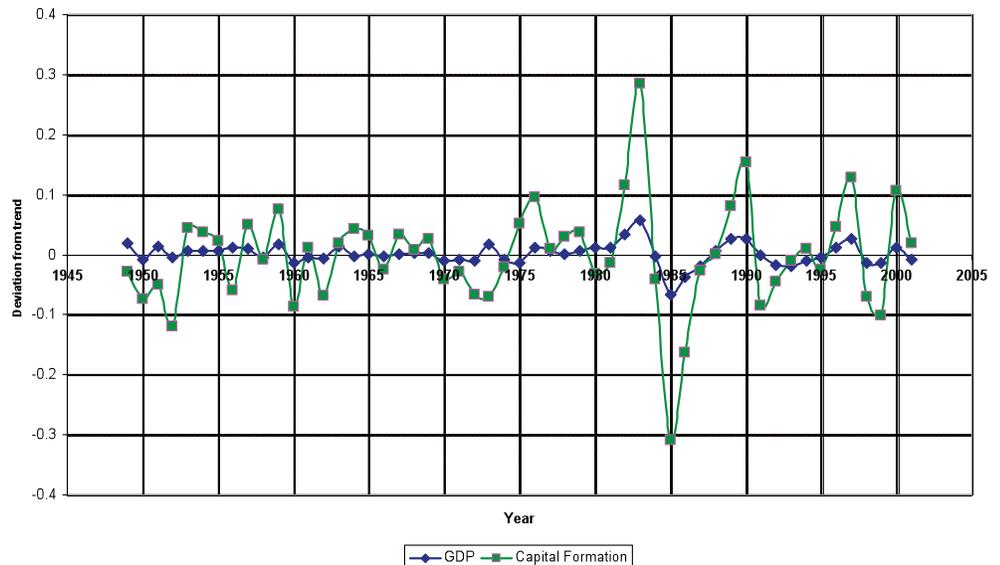
A finding indicative of a positive long-run implies that capitalization effects are present. This means that creation of new jobs results from the emergence of new firms due to the fast rate of innovation. A negative long-run effect on the other hand, implies that creative destruction is in effect. Faster innovation and growth raise the job separation rate and the inflow into unemployment (Malley and Muscatelli, 1997).

### SOME FINDINGS

Within an unstable macroeconomic environment, trade and capital account reforms were drastically introduced, opening up the economy to competition. During times of macroeconomic instability, economic buffers are rendered limited by prolonged fiscal stress, and, coupled with heightened competition, the willingness of firms to invest will be adversely affected.

Fluctuations in investments have been accentuated by fluctuations in output during the '90s. Fluctuations are more

Figure 2: Cyclical Behavior of Output and Capital Formation



pronounced during period of liberalization and are procyclical relative to output fluctuations.

Episodes of disinvestments are evidently significant during the '90s. Wide amplitude in investments indicates tremendous uncertainties compared to the relatively protected period prior to the '80s. Figure 2 shows the cyclical behavior of output and investment. Thus, during periods of instability and intensified competition, output fluctuations accentuate investment fluctuations.

In the long run, simulation evidence points to the occurrence of organizational changes after recessions. Even after 20 years, the cumulative impact of a recession to TFPG is 15%. This implies that as a result of shock, the economy has adjusted favorably. Also, this may explain why absorption into the manufacturing sector is sluggish. However, without the necessary upgrades brought about by significant investment expenditures, productivity growth will not be sustained.

In terms of the effects of TFPG on employment, the study finds that due to the slow TFPG rate, there is creative

destruction instead of capitalization effect. This is consistent with the Philippine experience in that investment growth has been very slow compared with other Asian countries.

### **POLICY IMPLICATONS**

The brief underscores the realization that fluctuations may drive favorable structural adjustments only if, at the outset, there is recognition of the importance of the business cycle-productivity interaction. Recessions do have bright spots. However, this is not a reason to celebrate since these only provide a broad characterization of economy-wide adjustments. For instance, it would be of great value to investigate actual adjustments in firms, that is, how they reallocate labor and capital during and after every recessionary episode.

From a policy standpoint, managing fluctuations has its benefits. First, even temporary downturns in economic activity have long-run productivity implications. This is critically relevant especially for the Philippines, wherein the boom-bust cycle continues to hold sway. This renders prudent macroeconomic management as the key to reducing volatilities in output and investment.

Second, while something good may come out after recessions, such as corporate restructuring, retooling, and reorganizing, a critical component of success is that improvements in capital via more substantial and sustained investment inflows should be evidently pervasive. Addressing an economic fluctuation is one thing; encouraging investment is another thing.

Third, technology policy is no doubt critical. One reason why the Philippines has not been innovative enough is that, in direct contrast to the experiences of Japan and Korea, there is very limited engagement in the development of indigenous technology.

Lastly, managing fluctuations may minimize the welfare cost of business cycles. The discussion merely shows how an economy adjusts to negative shocks through investments in organizational capital. In our macroeconomic history, it is clear that per capita real GDP in the early 2000 is comparable to that of the '80s, surely a source of concern since it highlights welfare losses or stagnancy.

## **REFERENCES**

Aldaba, R.M. 2005. The impact of market reforms on competition, structure and performance of the Philippine economy. Philippine Institute for Development Studies Discussion Paper Series No. 2005-24.

Alba, M. and Dacuycuy, L.B. 2009. Productivity, Employment and Economic Fluctuations: The Philippine case.

Malley, J., Muscatelli, V.A. 1997. Productivity shocks and employment: evidence from US industrial data. *Economics Letters* 57, 97-105.

Muscatelli, V.A., Malley, J. 1999. Business cycles and productivity growth: are temporary downturns productive or wasteful. *Research in Economics* 53, 337-364.

### **CONTACT INFORMATION**

#### **DLSU-Angelo King Institute**

St. La Salle Hall  
2401 Taft Avenue  
1004 Manila

Angelo King International Center  
Corner of Arellano Avenue and Estrada Street  
1004 Manila

+63-2-524-4611 loc. 287,  
+63-2-524-5333, +63-2-5245347 (Fax)  
<http://aki.dlsu.edu.ph>  
[AKI@dlsu.edu.ph](mailto:AKI@dlsu.edu.ph)