PRESS POINTS FOR CHAPTER 3: IS IT TIME FOR AN INFRASTRUCTURE PUSH? THE MACROECONOMIC EFFECTS OF PUBLIC INVESTMENT
World Economic Outlook, October 2014

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Key Points

- In countries with infrastructure needs, the time is right for an infrastructure push. Borrowing costs are low and demand is weak in advanced economies, and there are infrastructure bottlenecks in many emerging market and developing economies.

- Public infrastructure is an essential factor of production. Increasing public infrastructure investment raises output in the short and long term, particularly during periods of economic slack and when investment efficiency is high.

- Debt-financed projects could have large output effects without increasing the debt-to-GDP ratio, if clearly identified needs are met through efficient investment. In other words, public infrastructure investment could pay for itself if done correctly.

Public infrastructure is an indispensable input in an economy’s production, one that is highly complementary to other inputs such as labor and private (non-infrastructure) capital. It is hard to imagine any production process in any sector of the economy that does not rely on infrastructure. Conversely, inadequacies in infrastructure are quickly felt—power outages, insufficient water supply, and decrepit roads adversely affect people’s quality of life and present significant barriers to the operation of firms.

The significant decline in the stock of public capital as a share of output—a proxy for infrastructure—over the past three decades across advanced, emerging and developing economies points to infrastructure needs. Gaps in the quantity of infrastructure provision in emerging market and developing economies are glaring. For example, power generation capacity per person in emerging market economies is only one-fifth of the level in advanced economies; and in low income-countries it is about one-eighth the level in emerging market economies. In some advanced economies deficiencies are emerging in the quality of the existing infrastructure stock.
Increasing public infrastructure investment raises output in the short term by boosting aggregate demand and in the long term by raising aggregate supply. In a sample of advanced economies, a 1 percentage point of GDP increase in investment spending increases the level of output by about 0.4 percent in the same year and by 1.5 percent four years after the increase (Figure 1, panel 1).

The boost to output from higher public investment is particularly strong if:

- Public investment is done during periods of economic slack and monetary policy accommodation, with the latter limiting the increase in interest rates in response to the rise in investment.

- Public investment efficiency is high, in that additional public investment spending is not wasted and is allocated to projects with high rates of return.

- Public investment is financed by issuing debt rather than raising taxes or cutting other spending, with both options delivering similar declines in the public debt-to-GDP ratio.

The time is right for an infrastructure push in countries where conditions are right. Borrowing costs are low and demand is weak in advanced economies, and there are infrastructure bottlenecks in many emerging market and developing economies. The increase in public investment would support demand in the short term and would also help raise potential output in the long term. Furthermore, debt-financed projects could have large output effects without increasing the public-debt-to-GDP ratio, if clearly identified needs are met through efficient investment (Figure 1, panel 2).

Increasing the efficiency of public investment is critical to reap its full benefits. Thus, a key priority in economies with relatively low efficiency of public investment should be to raise the quality of infrastructure investment by improving the public investment process, through, among others, better project appraisal, selection, execution, and rigorous cost-benefit analysis.
Global imbalances have narrowed by over one-third between 2006 and 2013. The concentration of imbalances, and with it systemic risks, has also been reduced, as some of the largest deficits (United States and the stressed euro area economies) and surpluses (China and Japan) have declined. Current account surpluses in core European countries have instead remained large, while current account balances have deteriorated in some emerging markets.

Much of the adjustment in flow imbalances has been driven by weak demand in deficit economies and by growth differentials related to the faster recovery of emerging markets and commodity exporters. Expenditure switching has featured much less, especially in economies that have faced significant slack and operate under fixed exchange rate regimes, such as many European economies. Disruptive exchange rate corrections were also avoided—most notably of the U.S. dollar.

The narrowing of flow imbalances is expected to be durable. The demand-led narrowing in global imbalances was accompanied by higher unemployment in many deficit economies. But with much of the output losses expected to be structural—that is, the fall in actual output...
has been matched by a fall in potential output—the *World Economic Outlook* baseline forecasts predicts that the narrowing in imbalances will be lasting even as deficit economies close their output gaps over the medium term. But the extent of the decline in potential output is uncertain, and there is some risk of a renewed widening in flow imbalances once economies fully recover.

Since flow imbalances have typically narrowed, but not reversed, net creditor and debtor positions (“stock imbalances”) have generally diverged further. Moreover, the constellation of large debtors and creditors has changed little. Persistently high ratios of net external liabilities to GDP in some advanced economy deficit economies also reflect the low output growth and inflation since the global financial crisis.

While WEO forecasts generally suggest diminished external vulnerabilities in the coming years, some economies remain exposed. In 2006, the current account balances and net foreign asset positions of a number of economies were close to or exceeded thresholds associated with past crises. Since then, many of these economies have become less vulnerable, and the most recent *World Economic Outlook* projections suggest further reductions in external vulnerabilities in the next few years. But while risks have diminished, there is still scope for a reduction in “excess” current account deficits and surpluses in a number of advanced and emerging economies.

Policy efforts to foster global rebalancing remain a priority. Systemic risks from global imbalances have diminished. But reducing net external liabilities in debtor economies ultimately requires improvements in current account balances and stronger growth. Stronger external demand and more expenditure switching would help on both counts. Policy measures to achieve both stronger and more balanced growth in the major economies, including in surplus economies with available policy space, would be helpful.
Are Global Imbalances at a Turning Point?
(Percent of world GDP)

United States
China
Germany
Japan

Europe surplus
Europe deficit
Rest of world
Discrepancy

1. Global Current Account Imbalances

2. Global Net Foreign Asset Imbalances

Source: IMF staff calculations.
Note: O il exporters = Algeria, Angola, Azerbaijan, Bahrain, Bolivia, Brunei Darussalam, Chad, Republic of Congo, Ecuador, Equatorial Guinea, Gabon, Iran, Iraq, Kazakhstan, Kuwait, Libya, Nigeria, Norway, Oman, Qatar, Russia, Saudi Arabia, South Sudan, Timor-Leste, Trinidad and Tobago, Turkmenistan, United Arab Emirates, Venezuela, Yemen; Other Asia = Hong Kong SAR, India, Indonesia, Korea, Malaysia, Philippines, Singapore, Taiwan Province of China, Thailand. European economies (excluding Germany and Norway) are sorted into surplus or deficit each year by the signs (positive or negative, respectively) of their current account balances.