Is Currency Devaluation *Overrated*?

RIP-ROARING GLOBAL DEBATE is underway over whether currency devaluations are overrated as a means of enhancing national prosperity. An International Monetary Fund study suggests that between 1980 and 2014, a 10 percent depreciation by a country against the currency of a trading partner increased net exports by 1.5 percent of GDP. The bulk of the increase came in the first year after depreciation.

The conclusion now, however, is that devaluations are not having the same impact on GDP performance. The factors mentioned for this surprising new impotence are: 1) the collapse of global commodity prices; 2) the frequent scenario where economies with high commodity prices experience capital inflows that push up exchange rates while depressing exports, but when the currency weakens, that weakened export sector is unable to take advantage of the more competitive exchange rate; and 3) the off-setting effect of global supply chains with products being manufactured from a multitude of worldwide sources.

If the effectiveness of devaluation is coming into question, how will governments respond? Will officials whose economies are in trouble resort to efforts to try to control the flow of capital? Will a scenario emerge where countries faced with the declining effectiveness of currency depreciation conclude that the answer is actually more aggressive depreciation? In other words, if the medicine's not working, increase the dosage? What is the likely outcome of this debate?

Nearly thirty experts debate the issue.



The impact of a devaluation depends importantly on the pricing policy of the exporting companies.

MARTIN FELDSTEIN

Professor of Economics, Harvard University, former Chairman, President Reagan's Council of Economic Advisors, and former President, National Bureau for Economic Research

Ithough a currency devaluation will raise GDP in a country with less than full employment, the extent of the increase will differ substantially from country to country depending on the composition of its exports and imports and the mix of the countries with which it trades. Some exports trade in competitive markets and have a high price elasticity of demand. Other exports such as specialized machinery tend to have a much lower price elasticity and are therefore less responsive to currency change.

The impact of a devaluation depends importantly on the pricing policy of the exporting companies. In an important paper presented at the 2015 Jackson Hole Federal Reserve conference, my Harvard colleague Gita Gopinath showed that many companies invoice their exports in dollars and change their dollar prices only very slowly when the exchange rate changes. As a result, a currency devaluation does little to increase the volume of their exports but does increase their profits. We have seen this very clearly in Japan in recent years.

Even when devaluation has little effect on GDP, central banks will continue to use monetary policy to devalue their currencies for a different reason. With existing inflation rates far below their target values, the European Central Bank and the Bank of Japan can use currency devaluation to increase domestic inflation by increasing the prices of imports.



In almost all cases, devaluations work.

EDWIN M. TRUMAN

Non-Resident Senior Fellow, Peterson Institute for International Economics, former Assistant Secretary for International Affairs, U.S. Treasury, and former Director of the Division of International Finance, Federal Reserve Board

n every significant devaluation of the past fifty years or so, skeptics have argued initially that devaluation is not working to improve the current account or net exports and therefore real GDP. In almost all cases, the skeptics were wrong. They said that the country does not meet the Marshall-Lerner conditions on import and export price elasticities for a devaluation to be effective, but if that were the case, the country should appreciate its exchange rate to improve its current account and boost GDP, and I know of no cases where that has worked. They said

that devaluations do not work because the real effects get eaten up by rising inflation, and that is true if the central bank continues to print money to fuel inflation when the economy is near full employment. Expenditure switching often must be supported by other macroeconomic policies. They said that devaluation damages balance sheets and although it may boost net exports, it depresses domestic consumption and investment and the net effect on GDP is negative, but in those cases as in the Asian crisis, the recovery of GDP may be slow in coming but it does come and is led by net exports. Now they say that because of supply chains or some other feature of the globalized economy, devaluation does not work, but these skeptics forget that devaluation works on the import side as well as the export side. Sure, devaluation may not increase the demand for commodity exports which are price inelastic, but it can reduce the demand for imports and shift that demand to the domestic economy.

The effects of a devaluation on the current account, net exports, and GDP are not uniform across countries in terms of magnitude and timing, but it would be foolish to throw out 150 years of economic history because once again some people are saying "devaluation does not work." The likely outcome of this debate will be to conclude once again that devaluations in almost all cases do work, but then we will have the same debate again in ten or twenty years.



Japan has long illustrated the drawbacks of prolonged currency depreciation.

TADASHI NAKAMAE President, Nakamae International Economic Research

apan has long illustrated the drawbacks of prolonged ultra-easy monetary policies and currency depreciation. Two years ago (*TIE*, Fall 2014), I warned that a weaker yen would exacerbate Japan's trade deficit (nominal exports would increase but real exports would decline because Japanese companies have moved their factories abroad; simultaneously, a weaker yen would increase the value of imports). All this has served to weaken a fragile economy. Consumers have lost purchasing power as food and energy prices have gone up. And wages remain stalled as producers remain pessimistic about the global economy.

So Japan is once again in the midst of consumerled recession. Yet in terms of economic policy—notably monetary policy—little has changed since Shinzo Abe, the prime minister, took office in 2012. Even as other developed countries followed Japan's charge into zero (or lower) interest rate territory, the global economy has suffered more setbacks.

Last month, Japan demonstrated its willingness to double down on its experiment. Other regions may yet follow its lead. Why are policymakers bent on pursuing a strategy that is controversial at best, and a failure at worst? Aggressive monetary easing—and the resulting fall in currency—was once used in hopes that it would lift exports and production, improving the economic outlook which would then boost stock markets. These days, however, the tail seems to be wagging the dog. Officials seem to hope that bolstering stock prices will somehow improve economic performance.

This has not been the case. The effects of these booster shots have been temporary—quickly overwhelmed by, say, contraction and deflation in China, or falling commodity prices (or both) as bubbles created by ultra-easy monetary policies continue to burst. And the benefits of rising stock markets have become increasingly limited as the polarization of wealth has become more extreme. In Japan, a stock market-centric strategy is even less effective since fewer than one-sixth of households own any equities. Nor would any of this be possible without encouragement from big investors—banks, brokers, and hedge funds, primarily in New York and London. Currency devaluation, whether in the form of quantitative easing or negative interest rates, greatly appeals to those whose performance is judged by short-term benchmarks rather than long-term goals. Perhaps we need to start debating why policymakers, especially central banks, are so heavily influenced by stock markets and their movers. Alternatively, perhaps someone will find incentives for investors to start rewarding long-term economic performance. Unless, of course, a long-overdue and substantial correction does that for them.



Depreciations have to be bigger to achieve the effect desired.

BERNARD CONNOLLY *CEO, Connolly Insight, LP*

ne has to take account of what would have happened without currency depreciation: in the much-cited case of Japan, for instance, the correct comparison is not between net exports now and net exports when the yen depreciated; it is between net exports now and what net exports would have been if the yen had not depreciated.

That said, the factors invoked in recent discussion global value chains; falling commodity prices; and export sectors weakened by previous over-appreciation—can indeed help explain an apparently decreased sensitivity of net exports to currency depreciation. Global value chains, in particular, mean that output in the traded sector overestimates the degree of openness of the economy, value added being much less than output. This means that depreciations have to be bigger to achieve the effect desired by policymakers.

In most periods of capitalist economic history, this would not have been a problem. International imbalances, not global intertemporal imbalances, were typically the problem. But it now begs the question of what it is that policymakers desire. Abenomics, for instance, received general praise because it was seen as involving, via lower Japanese yields, a move along a given currency forward-curve for the yen. That had a substantial impact in reducing global yields, notably in the euro-area periphery, and supporting global stock markets. This was judged to provide net support to output in the rest of the world (*ex* Japan) even though Japan's share of global output might increase somewhat. It was for similar reasons that competitive devaluation in the 1930s was globally beneficial.

The problem now, however, is that in a world characterized by intertemporal disequilibrium and excessive bringing-forward of future spending, most countries, even those with current account surpluses, would need, individually, not a move along a given currency forward-curve, with lower interest rates and a weaker currency, but a jump onto a different forward curve in which the positive output effect of a weaker currency allowed interest rates to rise towards a level more consistent with intertemporal equilibrium. This is, of course impossible: all (or at least many) currencies may be overvalued relative to a notional full equilibrium, but they cannot all move towards such an equilibrium via jumping onto a different currency forward-curve.

That is not to say that there could not be beneficial currency moves. The most obvious would be a substantial appreciation of Germany's currency, if Germany had its own currency. Unfortunately, because of the malignant lunacy of monetary union, a substantial appreciation of the currency that Germany does have would create chaos in much of the rest of the euro area.

The more general problem is that in a world of intertemporal disequilibrium, it is not possible for any substantial country or group of countries to achieve full equilibrium. Currency wars simply push the world further towards zero or negative yields on all assets and thence towards extreme dangers for the financial system, for societies and for polities. But they are happening and will happen.



It depends on whether the change in currency value is moving towards its long-run equilibrium.

GENE H. CHANG *Professor of Economics, Chinese Economist Society, U.S.A.*

t is conventional wisdom in international economics: devaluation of the currency would increase net exports, thus boosting GDP. The International Monetary Fund study, published in its recent *World Economic Outlook*, reiterates this argument. The validity of the theory, however, is often questioned in the real world. For instance, scholars cite a counterexample that the Japanese trade surplus with the United States increased despite an appreciation of the Japanese yen in 1980s. Another counterexample is the currency devaluation in Indonesia after the 1997 financial crisis that caused an economic recession, that is, a fall in GDP.

The IMF's empirical work shows the statistical positive relationship between devaluation, trade, and GDP. A lot of theoretical investigations still need to be done to interpret this relationship and explain why there are counterexamples. It is still not clear, from the lengthy discussion in the IMF report, what factor ultimately explains the counterexamples.

I would argue that whether a currency devaluation would boost GDP or not depends on whether the change in currency value is moving towards its long-run equilibrium. If the change of the exchange rate, devaluation or revaluation, is a correction of an over- or under-valued currency, it should benefit the economic growth. If the change is moving away from the equilibrium value, it is detrimental. This criterion is based on the basic theory of efficiency economics. The devaluation of the overvalued Russian ruble in 1998 and overvalued Brazilian real in 1999 helped their economic growth in the ensuing periods. The Dutch guilder was not undervalued in 1959. Hence, its revaluation in 1960s was bad for the economic growth, as well known in the context of the "Dutch Disease." This equilibrium value criterion is more fundamental (than factors such as a banking crisis or global value chain) in determining which devaluation is "good" or which is "bad."

By using this criterion, one can expect that a devaluation of the Chinese currency won't boost China's GDP if the Chinese currency is not overvalued. The devaluation of the RMB can generate a negative wealth effect and depress consumption, which would be bad for China's economic growth. Consider another scenario. If the U.S. dollar is not overvalued, then a devaluation of dollar won't boost the U.S. GDP either.

In most cases, a free market would move the exchange rate to the right direction. That is, devaluation is in general a market action to correct an overvalued currency, thus boosting GDP. That is why the IMF empirical study found this relationship in its large sample. Yet in some cases, the market may fail, and then we observe the counterexamples such as the Dutch Disease and the Indonesian case.



The data suggest exchange rate effects are more important than ever.

JOSEPH E. GAGNON Senior Fellow, Peterson Institute for International Economics

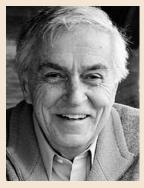
xports remain weak after a large currency depreciation. Is something changing in the nature of global trade? Are exchange rates becoming impotent? Can lost export industries be recovered? Theorists rush to explain the puzzle. A couple of years later it becomes apparent that exports are booming and that it just took a little time for the effects to be noticeable. Of course, I am talking about the United States in 1987.

The exchange rate is only one, albeit important, factor in global trade. Disentangling its effect is difficult, in part because shocks to trade feed back into the exchange rate. Staff at the International Monetary Fund recently conducted a comprehensive examination of trade flows in sixty advanced and emerging-market economies over the past three decades (Leigh et al. 2015). The study found little evidence of any reduction in the effect of the exchange rate on net exports.

The growth of global value chains may be reducing the proportional effect of the exchange rate on exports and imports (although the reduction is not statistically significant), but any such effect is more than offset by the rising volume of trade relative to GDP. Thus, the effect of the exchange rate on the trade balance is larger than ever for most countries.

A prominent exception to these findings is the case of Japan since 2013. A large depreciation of the yen was not followed by an acceleration of Japanese exports in the subsequent two-and-a-half years. Part of the explanation is the sluggish global economy. But a declining labor force and weak productivity growth probably also play a key role. It is possible that the depreciation prevented Japanese exports from shrinking. Moreover, the depreciation clearly has boosted corporate profits and the stock market in Japan. In any event, Japan's experience does not seem to apply elsewhere.

Notably, the sharp appreciation of the dollar starting in late 2014 clearly was responsible for the contraction of U.S. net exports in 2015, which in turn was the biggest drag on U.S. growth last year. A perception that exchange rates are becoming less potent would tend to support those perennial voices calling for fixed exchange rates. But the data strongly reject this perception and the outcome of the debate is already apparent.



Many politicians and policymakers believe that exchange rate depreciations have a positive impact.

RICHARD D. ERB Former Deputy Managing Director, International Monetary Fund

The International Economy magazine has asked whether "currency devaluations are overrated as a means of enhancing national prosperity." There are two parts to this question: do currency devaluations continue to have an impact on trade, and do devaluations enhance national prosperity?

Regarding the first question, a recent International Monetary Fund study concluded that "trade trends respond strongly to exchange rate movements" and that real effective exchange rate depreciations lead to "a rise in exports and a decline in imports."

The IMF study did not address the second question, but given currency tensions among countries in recent years, I think it is safe to say that many politicians and policymakers continue to believe that exchange rate depreciations, within limits, have a positive domestic impact while exchange rate appreciations have a negative impact on national prosperity. Nothing new about that.

What also is not new is a belief within many governments that other governments take every opportunity to maintain undervalued exchange rates. But what is relatively new in recent years is a belief that some central banks are using very loose monetary policies to promote exchange rate declines. This suspicion is not surprising given the very low interest rates and quantitative easing policies of a number of major-currency central banks.

It is in this context that the IMF will continue to have important roles to play in evaluating the impact of exchange rate developments on national economies, evaluating the underlying causes of exchange rate developments, and in particular evaluating the impact of government policies on exchange rates. The latter role has always been difficult but it is more so in a world where an increasing number of economies are open to international financial flows.



You have to distinguish nominal and real changes up or down in currency values.

ALLAN H. MELTZER Allan H. Meltzer Professor of Political Economy, Tepper School of Business, Carnegie Mellon University, and Distinguished Visiting Fellow, Hoover Institution

The media and many financial market commentators must learn to distinguish between nominal and real changes up or down in currency values. The exchange rate is a price that like any free market price can move up or down. Such changes can be entirely transitory, and often are.

Real exchange rates are relative prices. A devaluation that lowers the relative price has a lasting effect on demand for goods and services priced in the now-cheaper currency. Starting with its second round of quantitative easing, the U.S. Federal Reserve tried to increase demand for U.S. products by depreciating the real exchange rate for the dollar. Later, other central banks did the same. In turn, Europe, Japan, and now China adopted a policy of currency devaluation.

The difference between real and nominal exchange rates goes a long way toward explaining why some exchange rate changes have longer-lasting effects. No deep mystery.

Competitive devaluation is a return to the "beggarthy-neighbor" policies that countries relinquished after World War II. The principal victims are smaller countries forced to choose between two undesirable alternatives inflation-deflation or real exchange rate changes affecting employment and output.

The Federal Reserve should be ashamed of its decision to bring back this policy. A more alert International Monetary Fund would lead the way to end these actions.



It depends on the state of the economy.

WILLIAM R. CLINE Senior Fellow, Peterson Institute for International Economics

Does devaluation boost GDP? It depends. If the economy is at full employment, the effect of a devaluation is to switch production from non-tradables (mainly services) to tradables (manufactures, commodities), rather than to increase total production. If the economy has high unemployment, additional exports spurred by devaluation will tend to come from increased total production rather than from the switching of resources away from other sectors.

A problem arises, however, when many countries seek to pursue "competitive devaluation" to fight recession because of a zero-sum or beggar-thy-neighbor effect (as occurred in the 1930s). At the present time, there have been large devaluations by a number of commodity-based economies, but these have been market responses to falling commodity prices rather than cases of intentional competitive devaluation.

The reversal of capital flows to emerging markets associated with the prospect of normalization of U.S. interest rates has added to downward pressures on currencies. Since June 2014, before the implosion of oil and commodity prices, real effective (trade-weighted) exchange rates have fallen by 25–30 percent in Brazil and Colombia, for example, and by 13–18 percent in Australia and Canada. In Brazil, the sharp decline of the currency should help boost an economy in severe recession, and by more than the loss from lower commodity prices.

In the case of China, despite all the concern about a new shift to competitive devaluation, the real effective exchange rate is down less than 1 percent from its peak, and is still 14 percent above its June 2014 level. Chinese authorities have sought to curb the decline rather than promote it, and have spent a few hundred billion dollars of reserves to keep capital outflows from pushing the currency down even more.

A major question going forward will be the eventual need to moderate the sharp appreciation of the U.S. dollar, which has risen 22 percent in real effective terms since June 2014. The International Monetary Fund has found in general that the exchange rate still substantially affects trade, despite changes such as rising value chains in production. For the United States, I calculate that 10 percent real appreciation reduces the current account by about 1.6 percent of GDP, so there is some 3 percent of GDP or more of external demand contraction in the pipeline (considering lags) that will need to be taken up by rising domestic demand. Some reversal of the excessive rise in the dollar is likely to be necessary in the medium term, even with (and reflecting) some normalization in oil and commodity prices and market's realization that the rise in U.S. interest rates will be more gradual than would warrant the large rise in the dollar.



There is no definitive answer to this question.

RICHARD JERRAM Chief Economist, Bank of Singapore

s with many questions in economics, there is no definitive answer as to whether devaluation boosts GDP. Factors related to the industrial structure—such as the distribution of productivity between firms in a sector—as well as labor market characteristics will determine the impact. A disaggregated analysis looking at the divergence within sectors tends to produce higher estimates of elasticities than a broader macroeconomic approach. More anecdotally, the recent performance of Australia, Japan, or Malaysia in the Asia-Pacific region illustrates the potential for a weaker currency to support growth.

Even where devaluation boosts GDP, there is a broader issue in today's world where many developed economies are facing the zero bound on interest rates alongside very limited fiscal space. Lars Svensson's "foolproof way" of escaping a liquidity trap, involving currency depreciation to boost inflation expectations and lower real interest rates, as discussed in his 2000 National Bureau of Economic Research paper, becomes problematic.

Written in reference to Japan, at the time the "foolproof way" was a plausible (albeit politically challenging) scheme to escape from deflation and the zero interest rate constraint. However, back then other countries were in a position to accommodate Japanese foreign exchange depreciation by taking offsetting steps with their own fiscal or monetary policies, so it could have been a positivesum game for the global economy. In 2016 it looks more like a zero-sum game as currency devaluation simply transfers growth from the rest of the world, with little room for much policy offset elsewhere.

In such a zero-sum world, there is the concern that the losers will resort to trade protection in order to limit the impact from adverse currency moves. Admittedly China is trying to dump its excess industrial capacity through implicit or explicit export subsidies, rather than through aggressive currency devaluation, but the result is a similar threat to the world trade system.



Devaluation is no miracle cure.

CHARLES COLLYNS

Managing Director and Chief Economist, Institute of International Finance, and former Assistant Secretary for International Affairs, U.S. Treasury

ometimes it seems that devaluations are being recommended as the miracle cure for all macroeconomic ailments. But this is a serious mistake.

International economic textbooks correctly teach that exchange rate adjustment can be an essential tool for correcting external imbalances. In Argentina, for example, the new government's first steps to fix its dysfunctional economy have been to allow a sharp fall in the peso to correct the currency's massive overvaluation while dismantling the exchange controls that were strangling its economy. And large exchange rate depreciations have been crucial in helping the commodity-intensive Australian and Canadian economies adjust to large recent terms of trade losses.

But driving down the exchange rate is not a panacea for the long-term growth stagnation seen across so many countries in recent years.

For individual economies, the advantage of gaining price competitiveness has not disappeared but has diminished, as manufacturing and merchandise trade are no longer in the driving seat of global growth. The rapid extension of supply chains pervasive in the early years of this century has run out of steam. Manufacturing is moribund while trade has been flat.

Instead, whether you look at the United States, China, or elsewhere, the service sector—including education, healthcare, business and financial services, and leisure has been the most dynamic sector in recent years. This sector has absorbed a rising share of output as income levels have risen and innovation has favored "software" over "hardware." Services are generally less tradable than manufactured products and competitive advantage depends more on quality than simple cost, so the relevance of the exchange rate for trade dynamics has weakened.

Even more from a multilateral perspective, devaluations cannot be the answer. One country's competitiveness gain is another country's loss. "Currency wars" are clearly to be avoided. This is well understood in international policy making circles, reflected in the constant admonition in G20 communiqués against "competitive devaluation"—a phrase likely to recur in the communiqué after the upcoming G20 finance ministers' meeting in Shanghai.

So the emphasis for any viable growth strategy has to be doing the hard work to tackle the underlying reasons for feeble growth—improve human capital, open markets, and encourage innovation. Getting the macro framework right is important but is not enough.

Japan provides a perfect example of this hard truth. The initial excitement around Abenomics was inspired by the commitment to reforms as a "third arrow" to stand beside easier monetary policy and sustainable fiscal policy to transform Japan's long-term fortunes—and subsequent disappointment has reflected the slow progress on the reform front that has held back the economy's response despite the yen's large drop.



The evidence that currency devaluation is a weakening tool is compelling.

ANDREW DEWIT Professor, School of Policy Studies, Rikkyo University

he evidence that currency devaluation is a weakening tool for boosting growth is compelling. The International Monetary Fund's work is confirmed by research from the World Bank, the OECD, the World Trade Organization, and other agencies. They highlight the role of global value chains and "trade in value added," meaning the percentage of exports dependent on imported intermediate inputs. Against the backdrop of globalized production, cheapening the national currency raises the cost of intermediate inputs used in exports and so erodes the returns from devaluation. Japan's example has played a key role in this rethink of the metrics and mechanisms of trade policy. The country led the diffusion of complex global value chains in Asia and, more recently, has deployed an increasingly desperate Abenomics monetary-policy devaluation. The yen-dollar exchange rate has dropped by about 30 percent over three years, but it is hard to argue that Japan's exports and economic prospects have improved.

Though devaluation's economic benefits are dubious, the political incentives to double down on it could intensify. Economies big and small are in serious trouble, with as yet no persuasive alternative paradigm for fiscal action. But the takeaway lesson from recent meetings in Paris and Davos is that developed and developing economies alike confront multi-trillion-dollar deficits in infrastructure, especially in power and other lifeline systems resilient to worsening climate and energy risks. Hence, the expanding investments in "green infrastructure" and "smart cities" offer grounds for optimism.

Canada seems one country to watch. Since 2014, its currency has declined by over 20 percent relative to the U.S. dollar, yet its exports have not responded due to reliance on more expensive intermediate goods from the United States as well as competition from commodity exporters with even more devalued currencies. Canada's alternative strategy of "shovel-worthy" green infrastructure projects, based on consultation at all levels of government, could become a signal case for assessing the merits of fiscal activism focused on energy-efficient and climateresilient public investment.

But surely Asia is the critical area in deciding the prospects for this emergent approach. The good news is that the Chinese, Japanese, and Koreans have powerful incentives: they are all quite vulnerable to environmental and energy crises in addition to the fallout from a currency war. Another reason for hope is that these countries' spatial planning regimes have recently shifted to a focus on compact, resilient, and networked cities. Their technocratic elites and top city-regions understand that they have far more to gain from cooperation rather than beggar-thyneighbor policies.

Concrete initiatives abound. For example, the Japanese and Chinese already work together on smart cities. They are, respectively, the chair and vice-chair of the "smart community infrastructures" panel in the International Organization for Standardization. Their national governments also inked an additional agreement on smart city cooperation in December of 2015. This avenue of constructive demand growth, centered on city-regions, seems likely to gain increasing favor in financial circles. If so, it could help reduce the temptations of competitive currency devaluations and alleviate several other grave crises.



Currency depreciation remains an important part of the policymaker's toolkit.

MENZIE CHINN Professor of Public Affairs and Economics, University of Wisconsin

There's a long history of skepticism regarding the effectiveness of currency depreciation as a means of spurring net exports and GDP growth. In the postwar period, elasticity pessimism was often invoked as a rationale for foregoing devaluation. In the 1980s, a more sophisticated argument based on hysteresis effects—big exchange rate appreciations could not be undone by a sequence of small exchange rate depreciations—was forwarded. The most recent incarnation is based upon plausible arguments, but I'll argue they are only quantitatively relevant in specific cases.

The most recent manifestation of elasticity pessimism is based on the observation that the large imported component in some countries' exports means that depreciation enhances competitiveness only marginally. That's because a depreciation increases the cost of imported inputs even as it increases the price at which exports can be sold. But while East Asia—and China in particular—looms large in popular imagination, this region represents an extreme manifestation of global supply chains and vertical specialization (that is, imports used in exports). In fact, in quantitative analyses of how much vertical specialization alters our perceptions of competitiveness, China is an outlier, rather than the norm.

More closed economies, such as the United States, are much less subject to this effect. And even for China, that effect is likely to decrease over time as that country's producers incorporate more and more domestically sourced labor and inputs in export goods. For commodity exporters, it's true that currency depreciation has little effect on export prices, since commodities are mostly priced in dollars. Nonetheless, currency depreciation still serves to reduce imports. Consequently, currency depreciation remains an important part of the policymaker's toolkit. That doesn't mean that capital controls are off the table—for some countries, devaluation will be of limited or insufficient effectiveness. For others, financial stability concerns will motivate the use of capital controls. In fact, over the past few years, emerging market economies have already tightened their grasp over financial flows, as measured by the Chinn-Ito index of financial openness.

Perhaps the most important factor mitigating exchange rate depreciation in recent times is not due to reduced trade flow sensitivities, but rather to balance sheet effects. When external debt—both public and private sector—is denominated in foreign currency, the depreciation can, and will, exert a large negative effect on output. For those countries, however, that have built up asset positions in foreign currency, depreciation can have a big positive effect.

A final observation is in order. There is a tendency for observers to view competitive rounds of depreciations where one country's depreciation is matched by another country's—as a necessarily bad outcome. However, in a world where monetary policy is overall too tight (as measured by overly high real interest rates), competitive devaluations and the associated monetary loosening might move the world economy to an arguably better, higherinflation, regime.



The benefits of devaluation are being questioned more and more.

WILLIAM R. WHITE Chairman, Economic and Development Review Committee, OECD, and former Economic Adviser, Bank for International Settlements

n response to the global crisis, the Federal Reserve sharply eased monetary policy. The dollar fell on an effective basis and this was welcomed as a boost to U.S. GDP. However, others characterized the Fed's actions as "currency wars." They vigorously resisted the rise of their own currencies, fearing that it would slow domestic growth. The wars entered a new phase with "Abenomics" in Japan and the adoption of unconventional policies by the European Central Bank. Allied with growing fears of instability in a number of large, emerging markets, the dollar once again began to rise sharply on an effective basis. The dynamics of this process seem increasingly dangerous.

The basic premise underlying national policies—that exchange rate movements primarily affect national GDP via trade substitution effects—is being questioned more and more. Moreover, the unstated premise that national authorities can act in their own self-interest—without broader systemic implications—is just plain wrong.

Does nominal devaluation by a single country boost its GDP? For the trade account to improve, the signal of relative price shifts must get through to encourage more domestic production. Moreover, there must also be a response in terms of a shift from non-tradables to tradables. In recent years, the empirical evidence indicates that both links have become attenuated. Moreover, viewed from a global perspective, even these limited trade gains are illusory since one country's depreciation is another country's appreciation.

As well, in our modern world, the effects of a depreciation through large cross-border portfolio revaluations are likely to dominate effects through trade. The recent heavy issue of debt by emerging market corporations, often in dollars, implies a significant challenge to their meeting debt service obligations as the dollar rises. While in principle this too should have offsetting effects at the global level, in practice, gainers do not have to adjust while losers do. The losers, both corporations and banks, also face the non-linear constraint of bankruptcy. The South East Asia crisis of 1997 provides clear evidence that depreciations can actually be deeply contractionary.

What of the systemic consequences when many countries take steps to depreciate their currencies against the dollar? One fear that might arise, whether reasonable or not, is that a stronger dollar could slow the U.S. economic expansion. One consequence is that the Fed might choose to try to offset the effect of the stronger dollar by keeping interest rates "lower for longer," exacerbating misallocations in both the United States and elsewhere. Such misallocations, not least unsustainable asset prices, also pose serious threats to the global recovery. Finally, there is the longer-term problem of global current account imbalances. There is clearly something wrong when countries with massive external assets, like Germany, Japan, and potentially China, continue to rely heavily on exports to support domestic production. This process is bound eventually to end in tears, particularly if importing countries such as the United States are already heavily indebted.



The answer, both short- and longterm, is yes.

HEINER FLASSBECK

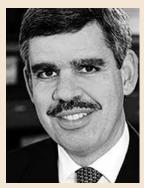
Director, Flassbeck-Economics, and Former Director, Division on Globalization and Development Strategies, United Nations Conference on Trade and Development

he short answer to that question is yes. The long answer to that question is yes, if you are actually producing a range of internationally traded goods.

To get the commodity problem out of the way: If commodity prices globally collapse due to a general excess supply in the markets, an additional 10 percent devaluation by a single commodity producer may not change his specific demand situation very much, as it is hard to induce additional demand if global demand is already satisfied at price levels that are considered to be super-propitious.

As far as Dutch disease is meant by the second query, we should not overlook the modern forms of Dutch disease where currencies of emerging markets are dramatically overvalued by currency carry trades, that is, speculation based on interest rate differentials and expected appreciation. That is much more important than traditional Dutch disease and has hit countries such as Brazil in a dramatic way in the first ten years of this century. Indeed, in these cases, the real appreciation may be so severe that large parts of the tradable goods sector are wiped out-the phenomenon is sometimes called "premature deindustrialization." If the depreciation eventually occurs, companies in such an overvalued country may be unable in the short term to revive their international business and grasp the opportunities of a sharp real devaluation. These are-in the case of Brazil in particular-the enormous costs of unfettered free capital flows and an international non-system, which some people trivialize by calling it "flexible or free exchange rates."

But under normal circumstances, the important feature of devaluations (we're talking about real devaluation) is the creation of opportunities. If a currency drops in a country with a diversified production structure and established trade ties, many companies and talented young people will quickly realize the gift of being able to lower export prices by 10 or 20 percent more or less overnight or to make a huge extra profit at given prices—and this may happen inside or outside the value chain. Whether and when the opportunities created by a real devaluation show up in GDP statistics or in next year's export performance is an open question. Imagine the extra profit is used to improve the quality of the product, a strategy German carmakers have used following their opportunity of a real depreciation of Germany inside monetary union. In this case, the positive quantitative effect may be truly long-term while short-term elasticities may look meager.



Global policy and financial developments have muted the impact of currency devaluation.

MOHAMED A. EL-ERIAN

Chief Economic Advisor, Allianz, and author, The Only Game in Town: Central Banks, Instability and Avoiding the Next Collapse (2016)

G lobal policy and financial developments have muted the impact of currency devaluation at a time when more countries are looking to this policy tool as a way to improve their economic wellbeing and prospects.

With political dysfunction having reduced the scope for comprehensive policy responses, most of the systemically important economies have relied on their central banks to deliver growth, stable inflation, and financial stability. Yet there is little these institutions can do to remove structural impediments to high inclusive growth, eliminate aggregate demand deficiencies, and lift pockets of crippling over-indebtedness. The best they can do—and have been doing—is to try to borrow growth from the future via the use of the financial asset channel; and, by weakening their currency, to take growth away from others.

While this approach can buy time for the politicians to step up to their policy responsibilities, it does so at the risk of collateral damage and unintended consequences. It is also an approach that does not work well if too many countries pursue it—which is what has been happening. And the potential for policy mistakes and market accident is further amplified by a lack of sufficient global policy coordination.

The end result is frustratingly low growth, growing inequality, and bouts of intense financial volatility. If not countered by more comprehensive policy approaches, this will eventually lead to recession, global financial instability, and further socio-political strains.



There is no absolute template to resolve economic problems.

CHRIS LEUNG Executive Director and Senior Economist of Group Research, DBS Bank (Hong Kong) Limited

The decision of whether and how much to devalue/allow depreciation depends, first, on the initial macroeconomic conditions of the economy under the prevailing exchange rate regime, and second, on the possible triggered reactions from other countries. If external trade makes up of a large part of the country's GDP, and/or if the country is suffering from a large trade deficit, then the justifications are there to take actions. For a major global currency, policymakers have to consider any potential negative consequences such as creating huge financial market volatilities or jumpstarting a currency war and consequentially backfiring one's own economy.

Let's take a look at the case of China now. The country has been consistently running a trade surplus of US\$50-\$60 billion all through 2015 with real GDP growth advancing 6.9 percent. Yet foreign reserves declined by a cumulative US\$600 billion since June 2014. Export growth contracted 2.9 percent in 2015, which is not surprising, given the Chinese currency remains 8 percent stronger in trade-weighted terms than it was in mid-2014. This set of figures suggests sharp devaluation does not make sense. It is rather a case of gradual currency depreciation in alignment of weakening fundamentals to restore competitiveness over time. But miscommunication with the market had already triggered a confidence crisis, forcing China to resolve the "impossible trinity"-a stable foreign exchange rate, free capital movement, and an independent monetary policy-the sooner the better.

In our view, either option (more aggressive depreciation or controlling capital flows) is possible. That said, any choices made will be primarily aimed at untangling China from the "impossible trinity" rather than any active attempt to boost headline GDP. Time pressure is on because hard-earned foreign reserves are disappearing at an unprecedented rate. China recorded a US\$108 billion drop in foreign reserves in December 2015. At this rate, reserves will hit the US\$3 trillion mark in April 2016. This is a threshold China must uphold, because it may need to set aside ammunition to shore up its fragile banking sector in the near future.

When reserves eventually hit the \$3 trillion mark, the government will likely pursue one of these strategies: freely float the yuan, impose strict capital controls, or engineer a significant one-off devaluation. Pursuing any of these strategies would require thorough and effective communication with the market, highlighting that the Chinese currency has been too strong for too long, shouldering the burden of supporting global growth when other key currencies—the euro and yen, for example—were depreciating by large amounts. In the interim, we expect to see progressively more capital controls, both onshore and in offshore RMB markets.

In conclusion, there is no absolute template for any country to resolve its economic problems. The country's initial macroeconomic conditions given its stage of economic development dictate the choice of policy solutions.



The foreign exchange market has been living in a fantasy world.

RICHARD C. KOO Chief Economist, Nomura Research Institute

The foreign exchange market has been living in a fantasy world since 2008, drastically devaluing the currencies of countries whose central banks announce quantitative easing programs. The U.S. dollar and the British pound both fell nearly 40 percent to historical lows against the Japanese yen when the U.S. Federal Reserve and Bank of England responded to the Lehman shock with quantitative easing. The yen then sank 40 percent against the other two currencies when the Bank of Japan unveiled its own version of quantitative easing four years later. Similarly, the euro dropped sharply once the European Central Bank's quantitative easing appeared imminent in late 2014.

With interest rates at nearly zero in all of these countries, exchange rates moved on the traders' assumption that the money supply of countries implementing quantitative easing would grow much faster than that of non-QE countries. Such an assumption was fully warranted in the pre-2008 world, when the money supply grew at virtually the same rate as the central bank-controlled monetary base.

Since the Lehman shock, however, the Fed has increased the monetary base 329 percent under quantitative easing but the money supply (M2) has expanded only 59 percent. The de-coupling between the two aggregates was even worse in the United Kingdom, with base money growth outpacing M2 growth by 381 percent to 23 percent. In the eurozone, the two growth rates were 93 percent and 19 percent, and in Japan they were 293 percent and 25 percent. Indeed, money supply growth in the United Kingdom and Japan has been almost identical for every year of the last seven years even though the Bank of England implemented a massive quantitative easing program in 2008 and the Bank of Japan waited until 2013. In short, the assumption about divergent money supply growth that drove exchange rates during this period had no basis in fact.

The textbook relationship between the monetary base and the money supply broke down because the bursting of the debt-financed bubble in 2008 left the private sectors in virtually all advanced economies with tremendous debt but no assets to show for it. That forced businesses and households in these countries to pay down debt or increase savings to repair their balance sheets. But when the private sector as a whole is deleveraging, the money multiplier turns negative at the margin, depriving the central bank of its control over the money supply. The dismally low money supply growth in these countries also explains why inflation rates have been so low.

Whether based on fact or fiction, the currency shifts that occurred did have some real-economy impacts. General Motors and Chrysler might no longer exist if the dollar/ yen rate had remained around 110 or 120. The fact that the USD/JPY rate fell below 80 at a critical junction for these companies was a huge boon to them. But those gains were reversed when the Bank of Japan and the ECB followed in the footsteps of the Fed and the Bank of England.

When a central bank embarks on quantitative easing, people expect the economy to do better because there is more money circulating and the exchange rate is lower. The former never materialized because the money multiplier turns negative at the margin when the economy is in a balance sheet recession, and the latter was a temporary phenomenon that was easily reversed because the relative rates of money supply growth never diverged sufficiently to justify the movements in exchange rates. In the end, the economies did poorly largely because they were all in serious balance sheet recessions, and the QEdriven devaluations during such recessions were nothing more than beggar-thy-neighbor policies with precarious foundations.



Currency devaluation is effective only in the short run.

LORENZO CODOGNO

Visiting Professor, London School of Economics and Political Science, and Founder and Chief Economist, LC Macro Advisors Ltd.

C urrency devaluation is a drug. Italy, as well as many other countries, knows it very well due to its pre-EMU period of repeated devaluations. Proper macro adjustments are a much better way to manage the economy and stay competitive, avoid disruptive adjustments, and smooth GDP fluctuations, although they are not easy to deliver.

Currency devaluation is effective in stimulating GDP growth only in the short run, depending on the size of the economy, its openness, and the pricing power of exporters. The larger the economy, the smaller is the effect of depreciation since export/import activity represents a smaller portion of GDP. The openness of the economy matters a lot as well. Moreover, companies exporting to the United States tend to price to market, that is, they have little pricing power, no matter in which currency area they produce, due to highly competitive and sizeable U.S. markets; the situation is different in most other countries. Finally, currency movements tend to offset commodity depreciation/ appreciation and global supply chains have made the whole issue much more complex than in the past.

Is such a big debate about beggar-thy-neighbor currency wars really justified? Currency devaluation is no policy for the long term, but it may act as a useful countercyclical tool. When all countries need it at the same time, then you end up with a problem. With the limited effectiveness of monetary policies due to the zero lower bound of interest rates, the transmission mechanism of monetary policy through the exchange rate has become even more important.

In the recent past, currency developments have broadly been consistent with fundamentals and have followed divergent monetary policy developments. Leaving aside some emerging markets where central banks have increased policy rates to try to contrast downward pressure on their exchange rates, most other countries have seen their currencies depreciating $vis-\dot{a}-vis$ the U.S. dollar as the U.S. economy has recovered more rapidly from the Great Recession. The Federal Reserve has started the process of normalizing interest rates and removing policy accommodation. In other countries, central banks are still struggling to deliver the right dose of policy accommodation, and a weakening currency has become instrumental in achieving this goal. This may have amplified some currency movements recently, although for good.

Over time, an excessive dosage of the same medicine would kill any patient, especially if patients have to fight against each other to get it.



My immediate response is that GDP is overrated.

DEREK SCISSORS *Resident Scholar, American Enterprise Institute*

y immediate to response to the question of whether currency devaluations are overrated is that it is GDP which is overrated. One suggestive trade-off in this case: an extra percentage point or two of GDP lasts a year, while for many countries flight capital caused by exchange risk can be gone for far longer. If GDP increases due to more export transactions but national wealth declines, this should not be seen as enhancing prosperity. The conflation of GDP with the economy encourages policy errors that extend well beyond exchange rates.

The relationship between GDP considered in isolation and exchange rate movement is contingent, and current conditions suggest devaluation would not boost GDP for many countries. Global demand is weak and the gross gain available from higher exports is smaller. Capital mobility is generally higher than in the early part of the IMF study, so short-term outflow in response to devaluation will be larger now, possibly offsetting the GDP increase identified in the first year. It may also be that extended loose monetary policy globally, which has compressed yields into a narrower range, has made investors more sensitive to small changes (as adjusted by currency valuation).

In addition, size plainly matters. A large trader is more likely to see quick retaliation against a devaluation, while smaller economies may be ignored by many of their partners. A large economy will also see comparatively smaller benefits from boosting net exports through devaluation. This second point is often missed in media commentary about China permitting a depreciation of the RMB for the sake of stimulus—China's domestic economy is now too large for a weak yuan to bring critical benefits. And this is true even if simultaneous capital outflow wasn't already more important.

If a devaluation is used to provide political cover for internal reform that enhances productivity, then it certainly can be part of a policy program that boosts GDP and the economy itself. But it can only be part of a package. The most frequent government response to a less rewarding environment for devaluation will be to continue to hope that devaluation alone will work, because structural reform such as reducing budget deficits or granting greater property rights is politically difficult. Capital controls will be needed in most cases of substantial devaluations, though they will be presented as minor and temporary. And governments might then point to higher GDP, even while the health of the economy is deteriorating.



Currency wars will yield no growth winners.

CATHERINE L. MANN Chief Economist, OECD

There was a time when policymakers could reliably expect a depreciation of the currency to increase exports and boost growth, not immediately, but at least in time, say over two years as contracts get renegotiated and buyers change their habits. But recently, it appears that currency depreciations are not doing the job. What's going on? Do we just need to wait a little longer to see the effect or is there something else, related to the financial crisis, that has upset the exchange rate, price-competitiveness, and export linkages?

First, for a currency depreciation to affect the relative price facing the buyer in the destination market, it has to be passed through to change those prices. In recent years, firms in some countries have wanted to show healthy profits, and firms in other countries have wanted to protect their balance sheet more than their market share. In both cases, export prices in domestic currency adjusted up, rather than being passed through the full amount of the depreciation. So, the price facing the buyer in their own currency moves less than the exchange rate does, and hence export demand rises by less than would be expected based on historical experience.

Another factor is the deleveraging by consumers in important markets, such as the United States. In the past, a dollar appreciation would reliably reduce the relative prices of imported products; U.S. consumers and businesses would respond by buying consumer and investment goods. The deleveraging process means that even when import prices fall, consumers keep the pocketbook closed. Without consumer demand, businesses see little reason to invest and buy imported capital goods. Weak demand dominates the relative price effect, and imports rise less than would be expected given the dollar appreciation.

A third factor is the reduced relative importance of competition for markets by independent firms versus by multinational affiliates. One feature of U.S. data, at least, is that the great trade collapse of 2009 was transmitted to trade flows by firms abrogating contracts with unrelated parties, whereas trade within a multinational held up relatively better. In general, related-party trade within a multinational is less responsive to exchange rate changes, since trade transactions are all in the family.

Of these three factors—less pass-through to change relative prices, deleveraging and other aspects of demand, and higher share of multinational trade—the most important is weak demand. Investment and consumer goods have high estimated elasticities of demand, so relative prices have to move much more in a slow-growth environment than in a robust one to attract buyers. Multinationals play a supporting role. It is not just demand in the home market, but it is global demand that matters for them to invest and buy capital goods in the global marketplace. As the financial crisis morphs and moves around the globe, the global economy has yet to experience a coordinated cycle upturn; even significant currency depreciation will not incentivize buyers.

Finally, to the extent that firms hoard cash generated by exports—rather than redeploying it by hiring workers, raising wages, and investing in plant, equipment, and knowledge-based capital—the multiplier effect of exports to GDP will be lower.

Since weak demand is the story, depreciation competition—currency wars—will yield no growth winners. Rather, a coherent policy strategy approach appropriate to each country needs to focus on growth that is widely shared. Fiscal, monetary, and structural policies must all be deployed. Exchange rates can't and won't do the job.



The perception of ineffectiveness may reflect a failure to distinguish market signals from policy actions.

JAMES E. GLASSMAN Head Economist, Chase Commercial Bank, JPMorgan Chase

he perception that currency devaluations are overrated-ineffective-as a means of enhancing national prosperity may reflect a failure to distinguish market signals from policy actions. In the modern era of floating exchange rates, currencies, like other financial market prices, reflect evolving economic circumstances as well as policy responses. So currency devaluation, if it reflects an adverse turn of events for a country, wouldn't be expected to bring much relief, for the same reason that a drop in the price of a product resulting from a decline in demand wouldn't be expected to restore the demand for that product. Local export businesses might benefit from the favorable shift in the terms of trade resulting from a devaluation, but any help to local exporters probably would be swamped by the damage to the broad economy that drove the currency down in the first place.

Sometimes currency devaluations appear ineffective because they work through many different channels, depend on the strength of business conditions, and in some cases may be overshadowed by the large economies of scale arising from concentrated global supply chains that are expensive to shift elsewhere. The effect of devaluation is particularly sensitive to business conditions. Foreign businesses may be reluctant to raise the price of their products in response to a decline in the currency of the market they export to for fear of losing market share. If they then hold the line on prices, they can chose to accept a loss of profits or to shift production to lower-cost markets. A currency devaluation might appear ineffective to the naked eye if businesses held the line on prices, but the economic impact-a likely shift in production from one region to the other-would be similar regardless of how businesses responded.

Currency devaluations may also appear ineffective when they are a response to actions by key central banks to boost their cyclically depressed economies. That's because the benefits of such devaluations will be shared more broadly in today's increasingly interconnected global economy. Take the recent actions (asset purchases) by the Bank of Japan and the European Central Bank that drove European and Japanese interest rates and currencies down and pushed global investors to dollar markets. Everything else the same, the rising dollar would be expected to benefit European and Japanese export businesses at the expense of U.S. exporters. But the actions of those key central banks pushed global interest rates down as well and boosted business prospects in those economies, results that should benefit American businesses as well, even if those eventual benefits are not easily tied to the euro and yen devaluations.

Even if the benefits of currency devaluations are thought to be less effective than in the past, policymakers are unlikely to turn to more extreme measures such as capital controls (which can generate unintended and adverse consequences in the future) or still-more aggressive efforts to devalue currencies. The pressure to resort to such measures should ease as the developed economies continue to recover. For sure, commodity-based economies are struggling, because the benefits of devaluation for local export industries tend to be swamped by adverse capital outflows associated with falling commodity prices. But efforts to diversify those economies would prove to be more helpful in the long run than short-term efforts that might threaten access to capital in the future.



The danger here is that policymakers act locally instead of reasoning globally.

DIANA CHOYLEVA Chief Economist and Head of Research, Lombard Street Research

Continuing to evaluate whether currency devaluation boosts GDP from the perspective of one economy reveals a fundamental flaw in current mainstream economics and policy. It is deeply dispiriting because it shows that central bankers in particular have failed to change their thinking after the global financial crisis.

Back in 2008, they knew extraordinary measures were needed to guard against economic collapse. But more than seven years later, official interest rates are still near or below zero, yields on \$5.5 trillion in government debt are negative, and quantitative easing, or bond purchases, have been way larger than initially thought. The conventional framework is clearly not working.

One reason is that policymakers act locally instead of reasoning globally. It is a grievous error for a central bank to base policy on domestic economic models that mechanically plug in the impact of other countries as an afterthought. They look at their own economies but take the rest of the world as exogenous—an influence beyond their control and, therefore, simply to be accepted. Their econometric models rely on other countries' views of their own outlook, which everyone else is reluctant to change, or the judgment of the International Monetary Fund when it comes to economies such as China. No wonder the result has tended to be overly optimistic growth projections.

In a world awash with excess savings, the starting point must be to analyze how economic forces interact at the global level. As central banks are not doing this, the more worrying consequence is that many countries have concluded the only way forward is to push down their exchange rates. This is clearly the policy of the Bank of Japan and the European Central Bank through their asset purchase programs. Mark Carney, the Bank of England governor, has also joined the chorus of central bankers blaming the rest of the world for staying the Bank's hand, thus stealthily weakening sterling. But of course, if everyone tries to devalue their way out of trouble by printing money, no one will prosper.



There is no simple answer. The time frame for analysis matters.

GEORGE R. HOGUET Global Investment Strategist, Investment Solutions Group, State Street Global Advisors

The effectiveness of devaluation in boosting GDP and reducing macroeconomic imbalances depends on multiple factors, including the economy's initial conditions, the structure of trade and output and the openness of the economy, the currency composition of government and private sector borrowings, the degree of inflation pass through, policies that accompany the devaluation, the response of trading partners, and the expectations of the market participants. There are times when the devaluations can be expansionary and other times they are contractionary. There is no simple answer, and the time frame for analysis matters.

A reading of economic history is instructive. The United Kingdom's decision to leave the Exchange Rate Mechanism in 1992 and to retain exchange rate flexibility was wise. The inability of the euro member states of southern Europe to devalue has imposed via "internal devaluation" hardship on millions of people. Prior to the adoption of the euro, the Italian lira periodically devalued versus the deutschemark to adjust for differences in inflation and productivity. Today, Italian industrial production stands at the same level as 1996. Nothing in monetary theory dismisses the significance of the exchange rate as a policy variable.

The severe emerging market crises of the past thirtyfive years provide many examples of "sudden stops," broken pegs, banking crises, and contractionary devaluations: the increase in local currency cost of foreign borrowings leads to bankruptcies and massive contractions in output, at least for a couple of years. But the economy may have been put on a more sustainable medium-term path.

Over the past twenty-four months, commodity producers have suffered a massive terms-of-trade shock. Emerging market currencies have sold off with a vengeance. Output has fallen, but current account deficits as a percent of GDP have in fact come down in many emerging markets. External balance is gradually being restored. Foreign exchange reserves have been preserved and, so far, financial stability maintained. Russia is one example. In general, structural policies to enhance longterm growth potential need to accompany the exchange rate adjustment.

On balance, emerging countries still believe the benefits of capital account liberalization exceed the costs. But in a world desperate for return, herding inevitably takes place. "Capital flow management measures" regulating inflows should not be summarily rejected. Measures to limit outflows—as in Azerbaijan—may emerge in some countries.

The world faces a very interesting natural experiment in the next twenty-four months in the case of China. Since August 11, 2015, the RMB has fallen by roughly 6 percent versus the dollar. As of early February 2016, one-year forwards predict an additional 5 percent decline. If China were to engineer a one-off maxi-devaluation (as was the case in 1993), or let the RMB float, would it be expansionary or contractionary?



The devaluationexport relationship has long been broken.

GARY KLEIMAN Senior Partner, Kleiman International Consultants

merging markets' devaluation-export relationship has long been broken, as illustrated by end-2015 statistics showing double-digit overseas sales decline alongside 20 percent depreciation in major economies, regardless of region or commodity versus manufacturing product line. Performance is not as bad in volume as in value terms, but is negative nonetheless and hurts not just government but company earnings as the latter must repay record external debt amounts with the higher dollar and creeping global interest rate rises. Brazil's sales were up 10 percent with the real's skid to R\$4 against the dollar but revenues fell 20 percent from its trade mix. Russia's ruble is the most undervalued big currency, according to The Economist's Big Mac index, but non-energy exports decreased last year as pricing power alone cannot ensure international competitive advantage absent efficiencies and scale at odds with decades of underinvestment.

The supply chain effect is pronounced in Asia, where component relative cost advantages are readily offset by associated imported input expense, and helps explain why both China and Japan cannot expect a depreciation windfall. Beijing's current exchange rate dilemma after entry into the IMF's SDR, and migration toward a basket peg of a dozen developed and developing country units beyond the dollar, demonstrates that even minor desired adjustments can be readily swamped by normal and underground capital outflows outweighing old-style current account improvement. Outside China, where the central bank continues to intervene heavily, emerging market reserves fell 2 percent to \$2.8 trillion last year despite a largely hands-off approach to weakness which benefited neither the commercial or financial sides of the balance of payments.

According to the Institute of International Finance, net portfolio inflows to thirty developing economies were negative in 2015 for the first time since the late 1990s Asian crisis, when broken peg devaluations ushered in a U.S.- and Europe-directed export boom in a pattern that can no longer be replicated. In the past decade, emerging market demand was the main contributor to world GDP growth and cross-border trade, and 2016 will be another year in the average 3–4 percent range. The lack of export credit is another structural barrier to the traditional currency boost and has also been identified in surveys as a legacy of the 2008 crisis. Numerous special programs were launched then by the World Bank and other official lenders that have since faded, and private banks have yet to fill the breach as uncovered during the U.S. debate over Ex-Im Bank reauthorization. Devaluation's trade response will be further muted without this support for years, complicated by knowledge and regulatory constraints.



Currency devaluations can have a significant effect.

IL SAKONG

Former Minister of Finance, and former Chairman of the Presidential Committee for G20 Seoul Summit (2010), Republic of Korea

Gurrency devaluations may affect a nation's real economy not only through their effects on foreign trade but through capital flows. For many emerging economies which are heavily indebted with foreign debt, currency devaluations amid the global economic slump—the Chinese economic slowdown in particular, and the strengthening U.S. dollar—will have stronger negative impacts on their economies through rapid capital outflows and resulting financial instability. This phenomenon has already begun in a number of commodityexporting countries.

Although individually these economies are not systemically important like China, together they are important for the global economy as a whole. Remember, they contributed a great deal in making up for the global economic slack left by most advanced economies after the 2007–2008 global financial crisis. Therefore, it is important not just for those emerging economies themselves, but for the rest of the world, to appropriately respond in order to avert possible currency crashes leading to another global-scale financial crisis.

First of all, the United States, Japan, and the European Union, which put up massive quantitative

easing programs with the primary purpose of stimulating their economies, may want to take the lead to help minimize unintended (perhaps unarticulated) negative impacts on the rest of the world, those vulnerable emerging economies in particular. For example, central banks of those countries might work with their counterparts of emerging economies for bilateral or plurilateral standing currency swap arrangements.

In addition, closer international economic and financial policy cooperation is needed for maintaining global financial stability. Towards this end, the rejuvenated G20 can take the leadership. After all, G20 leaders, G7 included, agreed in Pittsburgh in 2009 to designate the G20 as the premier forum for their international economic cooperation. The G20 already has an agreed mechanism, the Mutual Assessment Process, to be utilized for closer macroeconomic policy cooperation. Of course, the G20 needs to closely collaborate with the International Monetary Fund and other multilateral institutions in exerting the necessary global economic policy leadership.

There is a lot to be done by emerging economies themselves. While they publicly commit themselves to necessary supply-side structural adjustments with wellsequenced implementation schedules, they may need to introduce "macro-prudential measures" for appropriately controlling capital flows. Obviously, measures to stabilize capital inflows in good times are preferable. However, temporary measures on outflows cannot be ruled out as the last resort.



In the near future, it is unlikely that currency weakening will reverse course.

JOSÉ DE GREGORIO Professor of Economics, University of Chile, and former Governor, Central Bank of Chile

any emerging market economies and commodity exporters have been going through a significant weakening of their currencies. As domestic demand has slowed down and commodity prices collapsed, this is a normal development to facilitate adjustment. By increasing competitiveness, depreciation should boost external demand and demand for import-competing goods. This, in turn, increases domestic activity and improves the current account balance. The recent evidence, however, as well as current forecasts for the next couple of years, shows that the current account adjustment has been limited and economies whose currencies have depreciated are still suffering from weak activity.

Does this mean the effectiveness of currency depreciation as a boost to economic growth has diminished?

Despite some sanguine views in the International Monetary Fund's latest World Economic Outlook, and uncertainties given that the current cycle of currency weakening has likely not ended, a closer look at the evidence suggests otherwise.

In Latin America, for example, the adjustment has been only partial, and mostly through import compression, stemming from the decline in investment, rather than export expansion. One of the main reasons for the reduced impact of recent depreciations is related to the sluggishness of trade. Commodities were the first victims of the deceleration of global trade, which has been affected by the decline in demand from China. In addition, the change in growth strategy in China is having an effect on global trade. The shift from away from investment and exports toward greater consumption has also weakened demand for manufactured goods and increased demand for services. This is taking a toll on other countries' exports.

While most countries have experienced depreciation on a multilateral basis when computed with respect to trading partners, the potential gains in competitiveness are diluted when countries that compete in a third market are all experiencing a depreciation. This is not captured in the measures of effective exchange rates, but causal evidence indicates this may be relevant.

The sharp decline in commodity prices also presents challenges to the affected economies. The reallocation of resources takes time and is difficult to accomplish. Countries must move away from the production of investment goods in commodities, which had boomed until recently, to other tradable goods sectors. In many cases this entails geographic and sectoral reallocation—a process that takes time.

A more subdued impact of exchange rates on trade and output has simple but important implications. The required depreciation must be larger, or persist for a longer period. Therefore, in the near future, it is unlikely that currency weakening will reverse course. If anything, we cannot rule out further depreciation. It is important for policymakers to realize the importance of the exchange rate adjustment, otherwise the resulting protracted weakness in economic activity may prove costly. A credible monetary policy should facilitate the real adjustment by containing the inflationary effects of currency weakness.



Devaluations work.

HOLGER SCHMIEDING Chief Economist, Berenberg

evaluations work. Lowering the price of domestically generated value-added relative to that generated abroad shifts demand from foreign to domestic inputs. If domestic supply responds, GDP expands.

The data show that such changes in relative prices indeed redistribute global demand. For example, changes in China's trade-weighted exchange rate are strongly correlated with the pace of Chinese export growth some six months later. Also, the recent strength of the U.S. dollar versus the euro helps to explain the weakness in America's export-oriented manufacturing sector as well as the relative resilience of eurozone manufacturing despite the recent series of emerging market crises.

Like monetary policy in general, however, devaluations are no miracle fix for all sorts of economic ills. They work only if applied correctly and in the right circumstances. Shifting demand towards domestically generated value-added can offset a temporary deficiency of domestic demand. But it cannot cure a long-term malaise of supply. For countries suffering from deep-rooted supply-side problems, like Germany fifteen years ago or the euro periphery five years ago, a devaluation would merely have obscured the problem for a while without doing anything to fix it.

For advanced economies, devaluations today are probably less effective than they were in the past. Some of the benefits of a devaluation come from an expansion of capacities in the tradable goods sector. Ever since the post-Lehman mega-recession, companies are more cautious and hence reluctant to commit resources to any longterm fixed investment. As a result, business investment responds less than before to any stimulus, be it to lower interest rates or to a relative price advantage courtesy of a devaluation.

In addition, demand in advanced economies is gradually shifting away from commoditized goods which react strongly to changes in relative prices. Instead, the bulk of growth today stems from services and technologyintensive products for which the regulatory regime matters more than input costs. A change in relative prices between value-added generated at home and abroad may thus have a smaller impact than before.

Also, a devaluation cannot offset genuine shifts in the terms of trade. For example, a plunge in commodity prices will hurt exporters of raw materials even if their currencies devalue strongly. Of course, the devaluation provides an incentive to shift resources towards other export-oriented activities. But such a shift will take time and cannot eliminate the adverse terms-of-trade shock.

Like other changes in relative prices, devaluations still work. But we should not expect too much of them. They can neither solve supply-side problems nor shield countries against terms-of-trade shocks.

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