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The Power of Two: Inclusive Growth and the IMF

For decades, mainstream economics has focused on increasing economic growth and accelerating cross-country convergence, while ignoring distributional concerns. However, the consensus has begun to shift, and recent IMF research has paid increased attention to inclusive growth and the detrimental macroeconomic effects of inequality. The IMF also recognises the threat posed by climate change and has begun to dedicate research to exploring ways to decouple carbon emissions from economic growth.

It is common in macroeconomic models to assume the existence of a "representative agent", one person who represents the preferences of the entire economy. By construction, such models focus on growth rather than on distribution. However, the use of models with "heterogeneous agents" is increasing, which permit a joint analysis of growth and distribution. This trend has been mirrored in the IMF's research and operations in recent years. While growth remains critical, the institution increasingly recognises that:

- jobs are the basis for people to feel included in society and have a sense of dignity – hence the IMF's increased focus on unemployment and the functioning of labour markets;
- major segments of the population should have the opportunity to share in the prosperity of a country – hence the research into inequality;
- growth should be shared not just among this generation but with future generations – hence the scaling up of work on addressing climate change.

A common thread through many of the IMF's recent initiatives is that they seek to promote inclusion. Over time, these issues have become important to the institution's mission, as they directly affect economic performance and stability in many countries. This article describes the key findings of some of the IMF's work in these three areas.

Firstly, with regards to jobs, over the period since the onset of the Great Recession, the IMF has advocated a "two-handed" approach of boosting both aggregate demand and aggregate supply to bring unemployment down. This approach has been inspired by the economic environment in the 1980s, when unemployment was high and economists argued cogently that exclusive reliance on either demand or supply would not get the job done.[1] The other, related, focus of the IMF's work has been on testing the stability of the link between jobs and growth, commonly referred to as Okun's Law. For most advanced countries, the two are linked: "You can't have one without the other."[2]

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Regarding inequality, research shows that growth is more durable in societies with greater equality. This implies that the analysis of growth and inclusion cannot be decoupled – they are two sides of the same coin.[3] Though not discussed in this article, one particular aspect of inequality that the IMF has focused on is gender gaps in labour force participation.[4] In many countries around the world, bringing women into the labour force can improve the match between skills and jobs and raise per capita incomes.

Finally, other problems facing the world pale in comparison with the longer-run challenge of keeping the earth's temperature from rising more than two degrees Celsius above pre-industrial levels. To achieve this, it is critical that carbon emissions start to decouple from growth. There are conflicting claims about whether this is happening, which recent IMF research suggests may arise

1 O. Blanchard, R. Dornbusch, J. Dreze, H. Giersch, R. Layard, M. Monti: Employment and Growth in Europe: A Two-Handed Approach, Report of the CEPS Macroeconomic Policy Group, Economic Papers, No. 36, II/344/85-EN, 1985.
2 M. Zhu: Jobs and Growth: Can't Have One Without the Other?, iMFdirect, 30 April 2012, available at https://blog-imfdirect.imf.org/2012/04/30/jobs-and-growth-cant-have-one-without-the-other/.
3 J. Ostry, A. Berg: Inequality and Unsustainable Growth: Two Sides of the Same Coin?, IMF Staff Discussion Note, SDN/11/08, 2011.
4 L.E. Christiansen, H. Lin, J.M. Pereira, P. Topalova, R. Turk: Unlocking the Potential of Greater Female Employment in Europe, in: Intereconomics – Review of European Economic Policy, Vol. 52, No. 1, 2017, pp. 5-16.

for two reasons. First, a cyclical relationship between emissions and growth – an environmental Okun's Law – sometimes obscures the trend relationship emphasised by Kuznets.[5] Second, countries such as Germany and the UK appear to have achieved a decoupling of their output and production-based emissions, but this is not always the case for consumption-based emissions, i.e. once the emissions embodied in what these countries import is taken into account. This suggests that looking at country-level relationships may in some instances provide a misleading picture of why decoupling may have occurred.

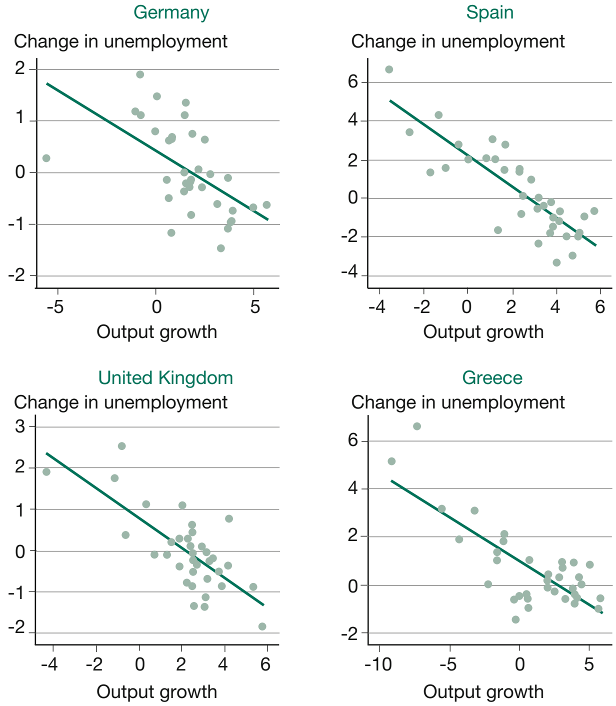
Jobs and growth: a two-handed approach

Unemployment is often thought of as largely a supply-side problem, as many economists argue that generous unemployment benefits keep people from searching for jobs or that there are structural problems that keep unemployment high. At the onset of the Great Recession, however, the most obvious explanation for why unemployment had spiked in the United States and Europe was that aggregate demand had fallen.

Much of the IMF's work at the time was thus aimed at making the case that often unemployment is high simply because demand is low. An early example is the work of Dao and Loungani, whose assessment that a "recovery in aggregate demand is the single best cure for unemployment"[6] was hailed by Krugman as "a relief to hear the Fund actually saying that".[7] Even on the other side of the political aisle, the Wall Street Journal, citing the work done by the IMF, concluded that "it isn't unemployment benefits or other specific [structural] factors that are holding back hiring. It's the economy, stupid."[8]

A key piece of evidence to make this case was to test whether Okun's Law – the cyclical relationship between unemployment and output – had remained stable through the Great Recession and its aftermath. Figure 1 shows the evidence on Okun's Law for Germany, Spain, the United Kingdom and Greece, using annual data for 1981-2015. The relationship between the change in unemployment and the growth rate of output has remained remarkably stable in all cases. The years of the Great Recession do

Figure 1
The stable link between jobs and growth (Okun's Law), 1981-2015, selected countries
in %



Notes: The panels show the relationship between output growth and the change in unemployment using annual data for 1981-2015.

Source: L.M. Ball, D. Leigh, P. Loungani: Okun's Law: Fit at 50?, in: Journal of Money, Credit and Banking, forthcoming.

not stand out, with the exception of one year in Germany where work-sharing programmes kept unemployment well below the rate expected on the basis of the output decline that year. Forthcoming research shows that for most advanced economies, Okun's Law fits well.[9] Likewise, it has been shown that aggregate demand factors played an important role in the rise in youth unemployment in Europe over the last few years.[10]

In some advanced economies, such as Greece, output gaps persist and unemployment is still far above its pre-crisis historical average. Domestic fiscal options are limited given concerns about debt levels, and monetary policy is constrained by the common euro currency. A solution sometimes advocated for such countries is to reduce unemployment through wage moderation, described as

5 S. Kuznets: Economic Growth and Income Inequality, in: American Economic Review, Vol. 45, No. 1, 1955, pp. 1-28.
6 M. Dao, P. Loungani: The Human Cost of Recessions: Assessing It, Reducing It, IMF Staff Position Note, SPN/10/17, 2010, p. 21.
7 P. Krugman: The International Monetary Fund Is Not Insane, The Conscience of a Liberal, 14 September 2010, available at https://krugman.blogs.nytimes.com/2010/09/14/the-international-monetary-fund-is-not-insane/.
8 B. Casselman: What's Holding Back Hiring?, Real Time Economics, The Wall Street Journal, 20 May 2013, available at http://blogs.wsj.com/economics/2013/05/20/whats-holding-back-hiring/.

9 L.M. Ball, D. Leigh, P. Loungani: Okun's Law: Fit at 50?, in: Journal of Money, Credit and Banking, forthcoming.
10 A. Banerji, S. Saksonovs, H.H. Lin, R. Blavy: Youth unemployment in advanced economies in Europe: searching for solutions, IMF Staff Discussion Note, SDN/14/11, 2014.

an "internal devaluation" strategy.[11] However, it has been shown that, if undertaken by several eurozone countries at the same time, wage moderation can only work well if monetary policy is not constrained by the zero lower bound. In the absence of sufficient monetary accommodation, wage moderation does not deliver much of a boost to output in the countries that are undertaking it and also ends up lowering output in the eurozone as a whole.

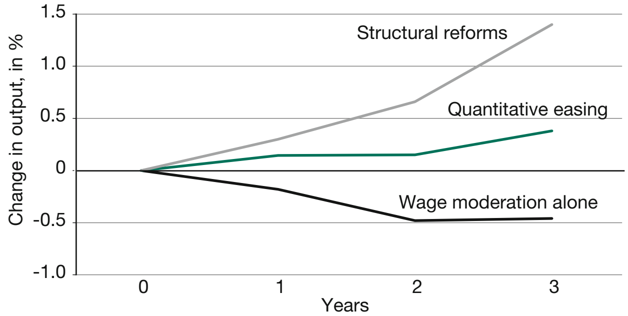
These results are illustrated in Figure 2, which shows the path of eurozone output (in terms of percentage deviation from the baseline). The results are based on a large-scale model of the world economy, including individual blocks for 11 of the eurozone economies. The specific policy considered is a two per cent wage moderation in each of the five "crisis-hit" eurozone economies. The impact of this policy is to lower overall eurozone output – shown by the black line in Figure 2. It takes strong quantitative easing to overcome this negative effect (the green line) and a strong impact of structural reforms on output for a combination of all three policies to deliver positive effects (the grey line).

Have structural reforms delivered a strong boost to output in the past? And will they prove effective at the present conjuncture of still weak aggregate demand? Recent empirical evidence offers guidance on the design of product and labour market reforms in a way that could avoid adverse effects on aggregate demand. Based on analysis of a new database of major policy changes for 26 advanced countries over the past four decades, Duval and Furceri find that labour and product market reforms have generally raised output over the medium term but take time to pay off.[12] The impact of product market reform, though not sensitive to conditions of demand, starts to be felt only after three years and fully materialises after about seven years. The effects of labour market reforms depend on business cycle conditions. Reducing employment protections and the generosity of unemployment benefits are expansionary when carried out during booms but can become contractionary in periods of slack.

To summarise, though the unemployment picture remains gloomy in some advanced economies, it would have been much worse without the cyclical measures undertaken to support aggregate demand, particularly the easing of monetary policy. In some countries, unemployment still remains well above historical averages, and measures to support a cyclical recovery are still needed. In other countries, unemployment is back to the pre-crisis average, but this average is too high. Here, the second hand of aggregate supply and structural policies is needed. Recent empirical work offers both hope that these policies are effective and guidance about how to implement them without hurting aggregate demand.

Figure 2

Impact of wage moderation, quantitative easing and structural reforms on overall output



Notes: The figure shows the effect on eurozone output of a simultaneous policy of two per cent wage moderation in five "crisis-hit" countries (the black line). The impacts of adding on quantitative easing are shown by the green line. The grey line adds in the assumed impacts of structural reforms.

Source: J. Decressin, P. Loungani: EZ internal devaluations: Evidence on negative demand spillovers, VoxEu, 2 December 2015, available at http://voxeu.org/article/ez-internal-devaluations-and-negative-demand-spillovers.

Inequality and growth: two sides of the same coin

Traditionally, economists worry about the rate of growth of output and much less so about how growth is distributed among people. Their concern is with making sure the size of the pie keeps getting larger rather than with the size of the slice that goes to each person. As noted earlier, the extensive use of the "representative agent" model rules out questions of distribution in the first place. Economists also generally frown on too much redistribution, that is, on transferring too much of the pie from the rich to the poor by taxing the rich at a much higher rate than the poor and by giving the poor cash transfers and other social benefits (e.g. food stamps and welfare payments). The market, it is felt, gives people their just rewards, and tinkering with these outcomes too much is both unfair and costly over the longer term because it takes away people's incentives to work hard.

The importance that many policymakers are now giving to addressing inequality suggests that they are not entirely convinced by this mainstream view. Many feel that not addressing inequality will have adverse socio-economic

11 The efficacy of such a strategy is questioned. See J. Decressin, P. Loungani: EZ internal devaluations: Evidence on negative demand spillovers, VoxEu, 2 December 2015, available at http://voxeu.org/article/ez-internal-devaluations-and-negative-demand-spillovers; and L. Elliott: IMF's hindsight says it was right to advocate QE in the Eurozone, The Guardian, 18 November 2015.

12 R. Duval, D. Furceri: The Effects of Labor and Product Market Reforms: The Role of Macroeconomic Conditions and Policies, mimeo, IMF, 2016.

consequences. This view has been bolstered by the findings of IMF research, which show that inequality makes economic growth less durable.[13] This is illustrated in Figure 3, which shows the relationship across countries between their level of inequality, as measured by the Gini coefficient, and the duration of the growth spells they have enjoyed. Clearly, countries with higher inequality have had less durable growth. This result has attracted considerable attention because it shows that high inequality imposes a direct economic cost. This is in addition to the costs highlighted by other authors, such as capture of the political process by elites and a decline in social cohesion. The result also puts inequality within the remit of the IMF's work, since it indicates that fostering sustained growth, a goal of IMF advice, requires paying attention to inequality.

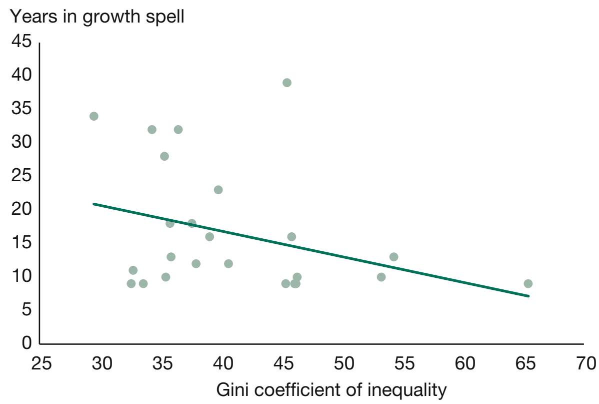
Why does greater inequality end up hampering durable growth? In advanced economies, IMF research shows that greater inequality in incomes may lead to excessive borrowing by low- and middle-income households, which eventually triggers a crisis. This sequence of events characterised the run-ups to both the Great Depression and the Great Recession.[14] The IMF's latest review of the U.S. economy showed that income inequality since 2000 has "had a negative impact on the economy, hampering the main engine of U.S. growth: consumption".[15]

Over the past three decades, within-country inequality has gone up in most advanced economies. IMF research has shown that in addition to the effects of technology and trade, a range of economic policies has also contributed to increased inequality. This is demonstrated in a comprehensive study and several complementary papers that look at the impacts of specific policies.[16] These studies imply that governments are not helpless to check the increase in inequality. While technology and trade are global trends that are difficult to resist, the design of many other economic policies that affect inequality is well within the control of governments.

Specifically, IMF economists have focused on three areas: policies aimed at reducing budget deficits through tax increases or spending cuts (i.e. fiscal consolidation or austerity), policies to remove barriers to the movement of capital across borders (capital account liberalisation) and labour market policies. While these policies are undertaken by governments because of the benefits they are expected to confer, they can also sometimes have the side effect of raising inequality.

Figure 3

Higher inequality results in less durable growth



Notes: This figure shows the cross-country relationship between inequality and the duration of completed growth spells of at least eight years in length.

Source: A. Berg, J. Ostry: Inequality and Unsustainable Growth: Two Sides of the Same Coin?, IMF Staff Discussion Note, SDN/11/08, 2011 – updated for this paper.

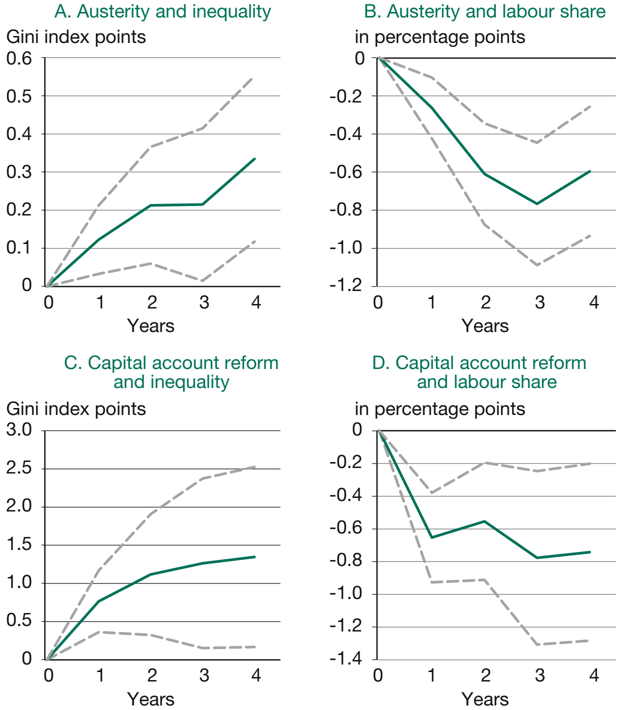
Regarding fiscal policies, IMF research finds that fiscal consolidations raise inequality and lower labour's share of income.[17] Policies intended to foster the movement of capital across national boundaries (referred to as capital account liberalisation) also have strong effects on the distribution of incomes.[18] These impacts are illustrated in Figure 4, which clearly indicates that the Gini measure of inequality increases and the labour share of income falls in the aftermath of episodes of either fiscal consolidation (austerity) or capital account liberalisation (financial openness).

The evidence also shows that when domestic financial markets are not developed or when people in the country lack access to them, liberalisation leads to an increase in inequality, presumably because the benefits of the foreign capital flows go to a small number of already well-off people. Likewise, the impact on inequality is large when a crisis ensues after liberalisation.

13 J. Ostry, A. Berg, op. cit.
14 M. Kumhof, R. Rancière, P. Winant: Inequality, Leverage, and Crises, in: The American Economic Review, Vol. 105, No. 3, 2015, pp. 1217-1245.
15 A. Alichi: Rising Income Polarization in the United States, iMFdirect, 28 June 2016, available at https://blog-imfdirect.imf.org/2016/06/28/rising-income-polarization-in-the-united-states/.
16 E. Dabla-Norris, K. Kochhar, N. Suphaphiphat, F. Ricka, E. Tsounta: Causes and Consequences of Income Inequality: A Global Perspective, IMF Staff Discussion Note, SDN/15/13, 2015.
17 L.M. Ball, D. Leigh, P. Loungani: Painful Medicine, in: Finance & Development, Vol. 48, No. 3, 2011, pp. 20-23; and. L.M. Ball, D. Furceri, D. Leigh, P. Loungani: The Distributional Effects of Fiscal Consolidation, IMF Working Paper, WP/13/151, 2013.
18 D. Furceri, P. Loungani: Capital Account Liberalisation and Inequality, IMF Working Paper, WP/15/243, 2015.

Figure 4

Impact of austerity and financial openness on inequality and labour share of income



Notes: The green lines represent the impacts of the introduction of austerity (top panels) and capital account liberalisation (bottom panels) policies on inequality (measured on a 100-point Gini index scale, A. and C.) and on the labour share of income (measured in percentage points, B. and D.). The grey lines indicate the associated standard error bands.

Sources: L.M. Ball, D. Furceri, D. Leigh, P. Loungani: The Distributional Effects of Fiscal Consolidation, IMF Working Paper, WP/13/151, 2013; and D. Furceri, P. Loungani: Capital Account Liberalization and Inequality, IMF Working Paper, WP/15/243, 2015.

Labour market policies may also have played a role in raising inequality in advanced economies.[19] The decline in unionisation is related to the rise of top income shares, and the erosion of minimum wages is correlated with considerable increases in overall inequality. Weaker unions could potentially lead to higher top income shares by raising the share of capital income or by reducing workers' influence on corporate decisions, including those related to the compensation of top executives.

Studies of the causes and consequences of excessive inequality naturally lead to discussions of possible remedies. For example, if fiscal policies are a cause of inequality, the design of these polices needs to account for that fact. This is both because the distributional consequences may be important in their own right to some governments and because higher inequality can reduce the durability of growth.

The design of fiscal policy, in particular, is critical for both "predistribution" and redistribution. Predistribution refers to actions to improve equality of opportunity, so that extreme inequality in market incomes does not arise in the first place. These policies include public expenditures on health and education, which can improve equality of opportunity for people from lower-income households.

In contrast, redistribution refers to actions taken after the fact to ensure that disposable – or net – incomes are more equal than market incomes. Steps to redistribute income include progressive taxation, cash transfers to low-income families and other welfare benefits. One important research finding by the IMF is that redistribution, unless extreme, does *not* retard economic growth; thus, there is no need to fear redistribution as a cure for excessive inequality.[20]

To summarise, IMF research and country work has made important contributions to the understanding of inequality:

- on causes, the finding that economic policies are an important determinant of inequality implies that governments can take steps to reduce inequality when it is deemed excessive;
- on consequences, inequality has been shown to have a direct economic cost in terms of reduced durability of growth;
- on cures, the design of policies should take into account the distributional outcomes; this is increasingly being done in the advice that the IMF gives to its member countries.

Emissions and growth: two forces at work

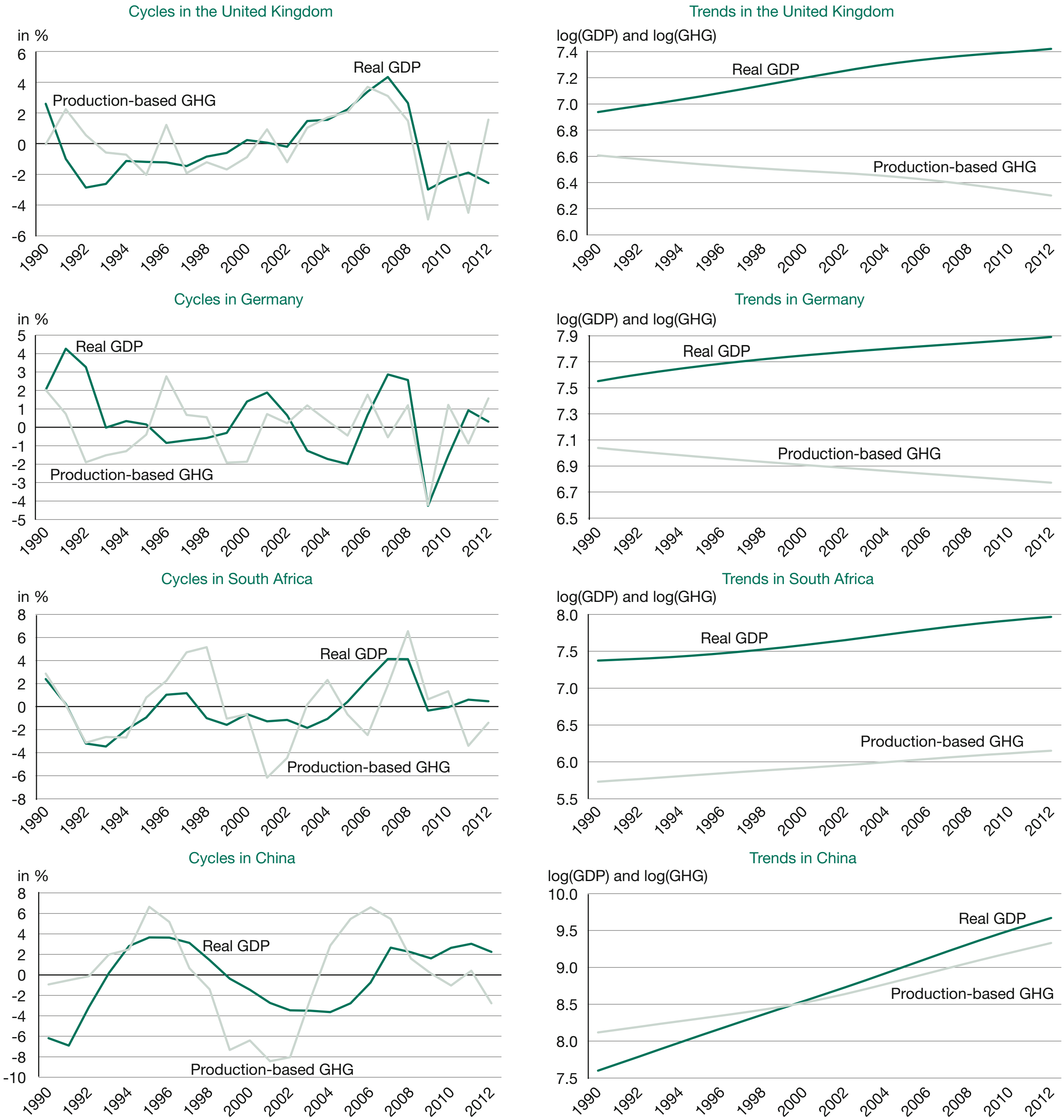
Putting the unemployed back to work through increased growth and making growth more durable by redressing extreme inequality are important challenges. But they pale before the existential threat posed by the failure to address the effects of climate change. While we need to make sure that growth continues, its relationship with carbon emissions must be broken.

There are conflicting claims on whether emissions and output have decoupled. Part of the debate arises from a failure to distinguish business cycles from trends: there is an environmental Okun's Law – a cyclical relationship between emissions and real GDP – that often obscures the trend relationship between the two. By decomposing emissions and real GDP into their trend and cyclical

19 F. Jaumotte, C. Osorio Buitron: Inequality and labor market institutions, IMF Staff Discussion Note, SDN/15/14, 2015.

20 J. Ostry, A. Berg, C. Tsangarides: Redistribution, Inequality, and Growth, IMF Staff Discussion Note, SDN/14/02, 2014.

Figure 5
Cycles and trends in real GDP and production-based greenhouse gases, selected countries



Source: G. Cohen, J. Jalles, P. Loungani, R. Marto: Emissions and Growth: Trends and Cycles in an Integrated World, IMF Working Paper, forthcoming.

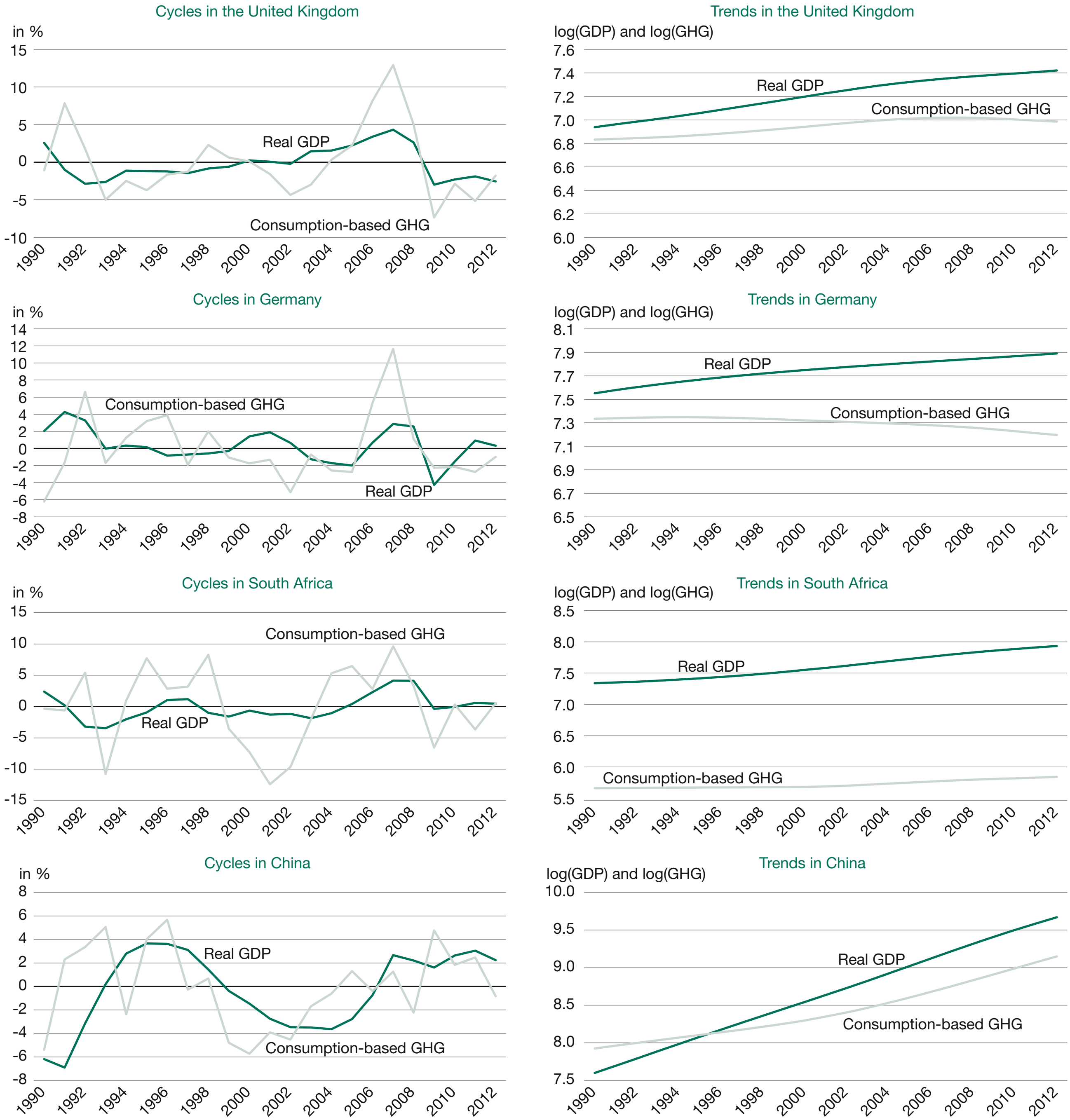
components, recent IMF work shows that the trends reveal evidence of decoupling in richer nations, particularly in European countries, but not yet in emerging markets.[21]

21 G. Cohen, J. Jalles, P. Loungani, R. Marto: Emissions and Growth: Trends and Cycles in an Integrated World, IMF Working Paper, forthcoming.

Emissions, like real GDP, move in cycles. There is a strong relationship between the two cycles. Therefore, emissions could temporarily be low simply because the economy is in a downswing phase of its business cycle, or temporarily high during a boom period. This is shown in Figure 5 for Germany, the United Kingdom, China and South Africa. In all cases, there is a strong cyclical relationship. Once

Figure 6

Cycles and trends in real GDP and consumption-based greenhouse gases, selected countries



Source: G. Cohen, J. Jalles, P. Loungani, R. Marto: Emissions and Growth: Trends and Cycles in an Integrated World, IMF Working Paper, forthcoming.

that is accounted for, the trends stand out very clearly. In Germany and the UK, there is a decoupling between emissions and growth, but that is not the case in the two emerging market economies.

It would appear from these results that advanced economies have managed to transition to a low-carbon path, with the real GDP trend and the emissions trend moving in opposite directions. But things change when a similar framework is used to take into account the effects of international trade; that is, if we distinguish between production-based and consumption-based emissions. Accounting the emissions related to a country's net imports weakens the evidence for decoupling in the richer nations, including in many European countries. The four cases are again shown in Figure 6, but this time using consumption-based estimates. The turnaround in the evidence for the UK is quite dramatic: instead of decoupling, the evidence indicates continued strong correlation between consumption-based emissions and output. Germany still shows decoupling, but it is not as sharp as in the case of production-based estimates.

To summarise, advanced economies have managed to transition to a low-carbon path, but globalisation has played a role: advanced economies tend to emit fewer greenhouse gases in producing their exports than the emerging economies emit in producing the goods which the advanced economies import.

Conclusions

As described by Ostry et al.,[22] there has been widespread consensus over the past three decades that there is a set of policies – monetary and fiscal discipline, structural reforms to free up markets, and global spread of markets through free movement of goods and capital – that can deliver growth and help cross-country convergence in average incomes. Other than a concern with reducing poverty, distributional concerns have largely been ignored in this consensus.

However, things are changing, and distributional outcomes are increasingly being studied side-by-side with growth. This article describes the evolution in IMF research towards increased attention to inclusive growth. The enhanced work on understanding unemployment and labour markets is one example. Another is the attention to inequality in the institution's research and country work.

Much can be done at the country level to foster more inclusive growth. But cooperation at the global level would help. For instance, the free mobility of capital sometimes leads to a race to the bottom in tax rates, starving governments of the revenues needed to carry out policies that would help inclusion; international cooperation is needed to prevent such outcomes. And of course, cooperation is essential to address truly global problems such as decoupling emissions from growth to counter the effects of climate change. As shown here, many advanced economies have made the transition to a low-carbon path, but this has come about in part through the shift of some of their consumption from domestic products to imports from emerging markets. While national contributions to reduce emissions are pivotal, they also have to add up to a globally consistent set of policies.

22 J. Ostry, D. Furceri, P. Loungani: Neoliberalism: Oversold?, in: Finance & Development, Vol. 53, No. 2, 2016, pp. 38-41.