UBS

Furthering the fight against poverty

Inequality, growth and the power of impact investing

For some of life's questions, you're not alone, together we can find an answer.

July 2014

Furthering the fight *against poverty*

Rapid economic growth halved the extreme poverty rate globally in just 20 years, lifting literally hundreds of millions of people out of poverty. But the recent rise in inequality has prompted a surge in populism, and heightened the risk that "protest politics" might impair economies' long-term growth potential. That matters because growth is what solves most of the big economic and social problems: poverty, government deficits, quality of life, rising healthcare and retirement costs.

Growth accounted for two-thirds of the fall in global poverty, but the law of diminishing returns is at work. To achieve the same reduction in poverty again would require a much higher growth rate today, and this looks much less achievable in today's slower-growth world. So in "Furthering the fight against poverty", a selection of UBS AG's Opinion Leaders focus on practical ways to narrow income inequality.

This is not an area where governments should carry the burden alone. We firmly believe that business has a role, and a responsibility, to contribute to these important societal issues. As the world's leading wealth manager, with many highly successful entrepreneurs as clients, we see at first hand the role they play in founding the enduring businesses that create the jobs, generate the tax revenues, and support the supply-chain and infrastructure spending that underpin economic growth.

"Furthering the fight against poverty" has identified a number of areas where the private sector can make a tangible difference. The first is the need to ensure workforces have the skills to meet evolving labor market demands, in both the developed and the emerging world, to help narrow the gap between the bottom and the top of the pyramid. Businesses are among the first to become aware of changing skills requirements in the labor market, but few countries have the close relationships with educators necessary to ensure that information is transferred to the education system. Establishing enduring, formal relationships between business and the education sector will help educators adapt to changing requirements in the labor market. Re-skilling those whose skillsets are mismatched to employment needs is a pressing issue in many developed markets.

Second, we see opportunities for major philanthropists – who are often also phenomenally successful entrepreneurs – to increase their engagement as strategic partners, rather than simply donors, to tackle social challenges such as education, healthcare and financial inclusion. Philanthropic funding can play a vital role in testing and stimulating innovation that, when proved, business and government can implement at scale.
As I talk to our clients around the world, it is clear to me that many are already thinking deeply about how they can maximize their contribution.

Third, the paper considers the potential of impact investing, with its dual social and financial goals, to appeal to mainstream private investors. Banks, with their expertise as intermediaries between capital and investment opportunities, clearly have a role in deploying capital effectively for social aims.

Development Impact Bonds (DIBs) are an exciting innovation where investors provide the financing for a development project, and returns are provided by a donor, NGO or government agency, provided that agreed outcomes are achieved. The UBS Optimus Foundation has just launched the first DIB in education to fund an NGO program that enrolls and retains girls at school in Rajasthan, India, and improves outcomes for all pupils. The Children's Investment Fund Foundation of the UK will pay for the social outcomes achieved by the program. We hope this bond will become a "proof of concept" that can be replicated and scaled-up in the education sector and beyond.

Business has a role to help ease the income disparities that are causing widespread unease today and to continue lifting people out of poverty. These are challenging issues, and we certainly do not profess to have all the answers. But we hope this contribution from UBS will inspire you to engage in this vital debate.

Sergio Ermotti
Group Chief Executive Officer
UBS

Authors – A selection of UBS AG's Opinion Leaders

Stephane Deo
Larry Hatheway
Andreas Koester
Simon Smiles

With special thanks to
Kiran Ganesh
Gian Plebani

Section 1: A recent history of world income dynamics

Extreme poverty: the great leap forward

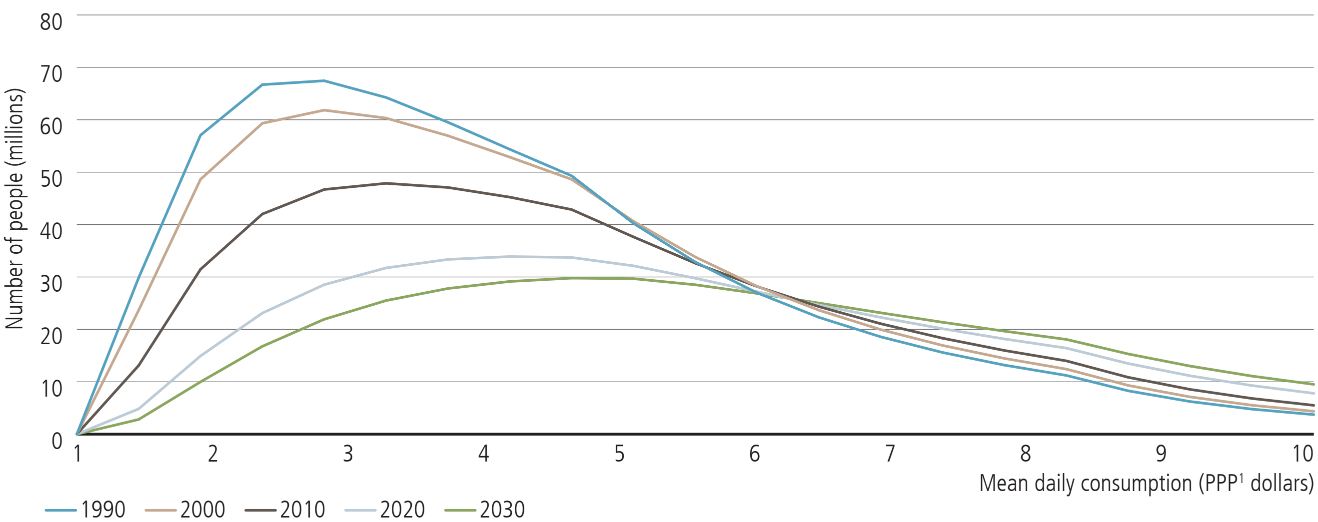
One of the defining features of the past few decades has been the huge reduction in the number of people living in extreme poverty worldwide – one of the largest shifts ever recorded in human history. Extreme poverty was defined at the end of the last century as living on less than USD 1 a day; the threshold is now USD 1.25 a day.

In 1990, there were 1.9 billion people living on less than a dollar a day. That amounted to just under half (43%) of the population of the developing world. A decade later, the proportion had fallen to one-third (around 35%). By 2010 the proportion of the population in emerging countries in extreme poverty had declined to around one-fifth (21%), or to 1.2 billion people. In short, the global extreme poverty rate had been halved in 20 years. This is obviously good news, and raises the question whether the remaining half can be lifted out of extreme poverty over the next two decades.

One key feature of global poverty reduction is its geographical pattern. Essentially, in 1990 there were three zones where extreme poverty was concentrated: China, South Asia (essentially India) and Africa. The numbers show that the decline in extreme poverty has essentially been a Chinese story; it has not been uniform across the three zones. Specifically, China accounts for about three-quarters of the decline in extreme poverty over the past 30 years. The potential for further reductions in China is now limited, so further progress will have to come from the other two main regions: India and Africa.

Further reductions are also difficult to achieve because of the shape of income distribution. The following chart comes from a study on extreme poverty published by the Brookings Institution. Essentially, the shape of the distribution is asymmetrical, with a large concentration to the left of the distribution. This means that, with a starting point in 1990, a small increase in the overall standard of living shifts a large number of people above the threshold of dire poverty. But with the starting point of the 2010 distribution, a similar increase in average living standards takes fewer people out of extreme poverty.

Probability density functions: 1990, 2000, 2010, 2020, 2030



[1]PPP refers to Purchasing power parity
Source: The Brookings Institution

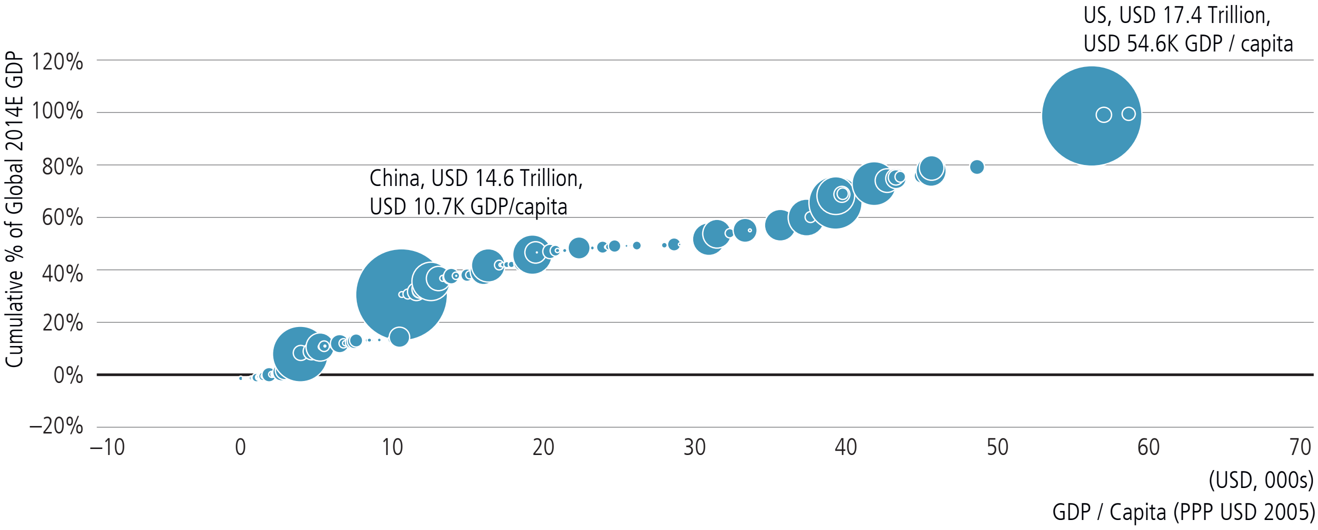
The swelling middle class

One consequence of rising living standards is the creation of a larger middle class in emerging markets.

The chart below shows that about 85% of the world's population now lives in countries with a GDP/capita above USD 10,000. Why is that important? Because that threshold is statistically the level at which consumption patterns change. It is usually associated with more mature markets in which, for instance, the consumption of durable goods (such as refrigerators, televisions and cars) becomes widespread. In short, this threshold is consistent with an emerging middle class.

We also note that a recent study found that 90 million people in China have an income above the European average. That figure exceeds the population of Germany (81 million). It also shows that the "probability density function" is morphing rapidly, at least in the case of China, and that the distribution has been skewed to the right at each level of income. The number of extremely poor people (below USD 1.25 a day) is declining, while the ranks of the middle class (above USD 10,000 a year) are expanding and an upper-middle class (above European standards) is emerging. This is very much consistent with the chart from the Brookings Institution above.

Cumulative % of Global GDP against GDP/Capita



Source: UBS

World inequality: down, actually!

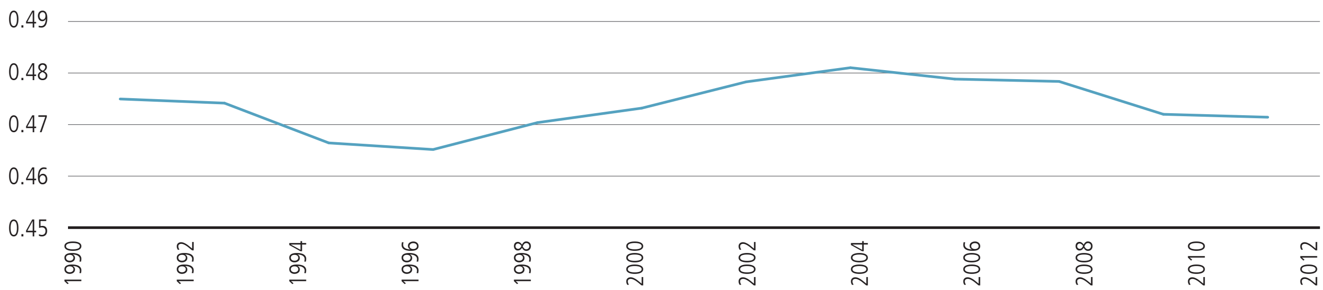
Much has been written about the surge in inequality worldwide, including Thomas Piketty's controversial recent book "Capital in the Twenty-First Century." And it is a well-documented fact that inequality has grown in a number of countries. This is true of most OECD states, but also of a number of fast-growing emerging countries. Correct – but if one billion Chinese are catching up with OECD standards, that should reduce the disparity of incomes in the world. Or if one billion people escape absolute poverty, that should reduce income inequality.

Is the intuition right? We test it in the chart below using Gini coefficients, treating each country individually. The Gini coefficient measures income inequality among countries in the world.

We learn several things. First, income inequality did indeed increase during the rapid phase of growth of the late 1990s, as the OECD countries benefited from the IT productivity boom and grew at a more rapid pace. But it also appears that from the beginning of this century the dispersion of income among countries has receded, even reversing the 1990s increase. The current position of global inequality is slightly below its level at the beginning of our sample period.

Ravallion and Chen (2012) made a similar point in a recent study.

Income inequality using Gini coefficients



Source: UBS

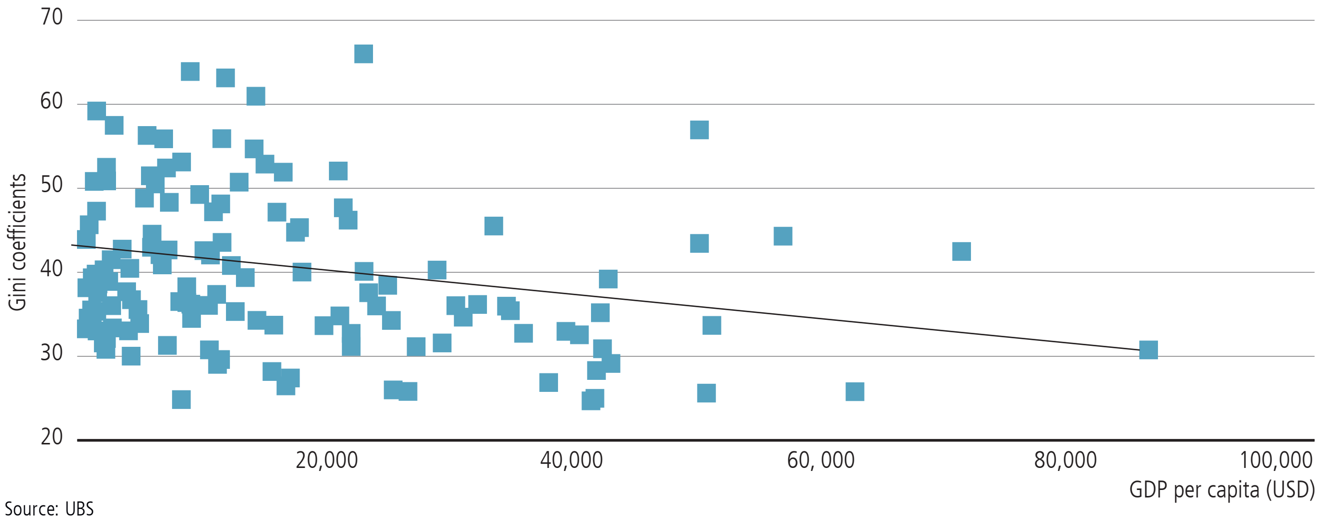
What drove this vast reduction in extreme poverty?

Ravallion (2013) finds that two-thirds of the fall in poverty was the result of growth, and that one-third came from greater equality. The problem lies in diminishing returns (see Figure 1 above, which shows the shape of the distribution). The number of people living on USD 1.20–1.25 per day was more than 100 million in the 1990s, 85 million in 2012, and is projected to decline to 56 million by 2020 and to 28 million by 2030. The same reduction in the number of people living in extreme poverty now requires a much higher growth rate. Relying on growth to make significant progress in lifting populations out of extreme poverty appears more difficult in the slow growth world following the financial crisis.

One way to illustrate the same point is to look at the correlation between Gini coefficients and levels of national development. The chart below shows that Gini coefficients decline rapidly when countries are very poor and their economies are growing rapidly, but that the effect of additional growth on income distribution diminishes as countries get richer.

An additional issue is that poverty is less responsive to growth in sub-Saharan Africa than it is in India or China. That suggests that reductions in absolute poverty are also influenced by other factors, such as levels of education, political stability and the openness of an economy.

Correlation between income inequality and levels of national development



Source: UBS

Historic change

The last two decades saw two remarkable changes. First, with the fall of communism, an array of countries from Europe to Asia gained access to the global economy. Second, China continued on its path of reform and openness, culminating in its becoming a member of the World Trade Organization (WTO) in 2001. From an economic perspective, those events rapidly increased the supply of labor in the global economy. Much of that labor was also low-wage and low-skilled.

The sharp increase in global labor supply resulted in profound changes in relative prices. Importantly, the ratio of capital to labor fell. And the result was a significant shift in the return on capital relative to labor, with profits soaring and the share of labor income in national output falling.

The two following charts show that this was indeed the case. The first chart shows wages as a share of GDP, which have fallen across the OECD for the past four decades and today remain near six-decade lows.

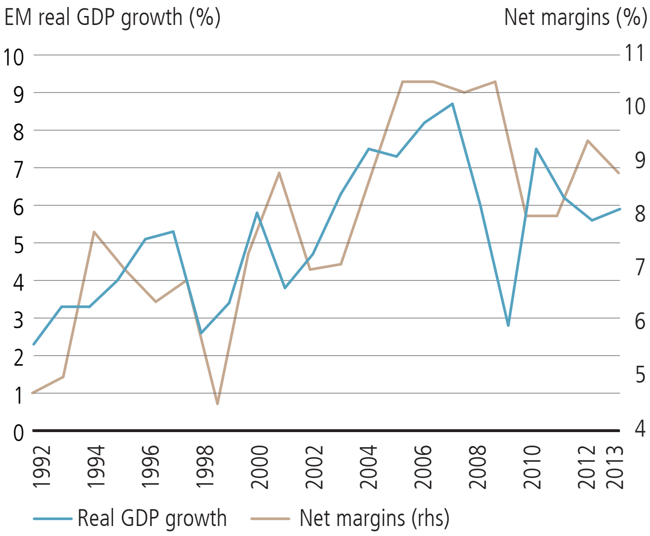
It is also worth noting the decline since 2000. The opening of Eastern Europe and Russia in the 1990s does not seem to have had much impact on labor's share in income, whereas China's accession to the world economy in the past 15 years appears to have been much more significant – one billion Chinese, apparently, make a difference.

So what are the future consequences for income growth and distribution? A key observation is that the increase in global labor supply of the past quarter century was, in effect, a one-off shift in the capital/labor ratio. With time, relative prices should stabilize or even revert to their long-term averages. But that will only happen when the excess supply of labor has been absorbed. Gradually, that may now be taking place, initially in emerging economies. The chart below shows that emerging economy profit margins have been under pressure recently (although some of the observed profit deterioration is arguably due to cyclical factors). In countries such as China, Brazil or South Africa, nominal wages are rising more rapidly, as labor skill shortages are becoming more apparent.

If labor incomes are now set to rise at a faster clip, especially in emerging economies, the result – all else equal – should be an improvement in income distribution. At the global level, however, it remains premature to assume a similar increase in labor income, given still-high levels of unemployment (albeit not in Germany, Japan or the United Kingdom). Overall, the dispersion of income among countries may continue to decline, led initially by selected emerging economies, with a more sluggish catch-up in many advanced economies.

Profits have soared at the expense of labor income

Source: UBS



Source: UBS

Section 2: Consequences

Poverty: history of thought and economic implications

The subject of poverty and income inequality has gathered considerable attention in the media, among policymakers and investors. Partly, that reflects the realization that income distribution within many countries has become much less even in recent decades – and in particular following the financial crisis. But unequal income distribution is also a focal point for discussions about whether skewed income distribution may hinder economic recovery, diminish long-term growth prospects or impair economic efficiency. A large proportion of the population consigned to the poor or extremely poor brackets could create what economists term "poverty traps".

In what follows, we explore these issues. We first take a look at how the economic literature has addressed the causes and consequences of income inequality. That's useful, insofar as the pattern of income distribution may have a bearing on economic efficiency and growth, and hence on potential remedies. We then turn to more recent studies of poverty, inequality, income patterns, growth and efficiency. We conclude with some observations regarding possible political implications.

Income distribution, economic efficiency and growth theory have long roots in the history of economic thought, dating back to Adam Smith and David Ricardo (who called inequality the "principal problem in political economy"). Indeed, understanding why some people (as well as societies) improve their standard of living, while others do not, has been a fundamental question in economics since its inception as a "social science".

In classical economics, the relative distribution of income is considered a function of relative scarcity, as well as productivity. Returns between factors of production – for example capital or labor – are driven by their relative abundance. To be sure, Smith and other classical economists also emphasized the importance of productivity – more productive workers were likely to enjoy higher living standards than less productive ones. But productivity gains – according to classical economists – could be spread diffusely across the labor force, particularly when labor was in ample supply. Accordingly, even the bulk of productivity gains might find their way into the hands of the few owners of capital, if capital was the relatively scarce factor of production.

That point was made forcefully by Thomas Malthus, who argued that population growth (labor supply) would overwhelm productivity growth, leading to subsistence outcomes. Excess labor supply (the "industrial reserve army of the unemployed") featured in the writing of another classical economist, Karl Marx, who argued that surplus labor would result in the exploitation of labor by capital, with massive (and unsustainable) maldistribution of income and wealth (capital).

The work of classical economists did not, however, focus exclusively on the distribution of income between factors of production (i.e., capital and labor). Adam Smith also pointed out that wages (incomes) might differ among individuals owing to their occupation and level of education. Wage differentials might reflect differences in labor demand according to occupation, labor supply (difficult or unpleasant occupations might be expected to pay more, guild systems might restrict supply), or skill levels. Importantly, Smith also recognized that the payoff from education ought to equal (or exceed) the investment required (including forgone wages while in education), presaging the importance of human capital (skills) for income outcomes.

Among the first economists to link productivity, education and health to income was Alfred Marshall. Wages were, in his view, linked to the marginal productivity of the worker. But in Marshall's view lifetime wages also depended on social circumstances. He noted, for instance, that poorly fed children in one generation will have lower earnings and may not be able to raise the next generation adequately, leading to a cycle of poverty. Unequal outcomes, in short, could result from one's station in life. Equally, of course, inherited wealth can confer inter-generational benefits. Marshall's insight has led many economists to address inequality by creating equality of opportunity through improvements in education, healthcare and broader living conditions.

Other economists (Arthur C. Pigou, Joan Robinson, John Hicks) have focused on deviations from classical economics – such as oligopoly, monopoly or monopsony – as key drivers of unequal outcomes (typically between capital and labor).

In the post-war period, important contributions to the understanding of income distribution were made by Milton Friedman and Simon Kuznets. Friedman argued that differences in income resulted from differences in risk-taking, with capital earning higher returns based on the inherent riskiness of investment. By extension, redistribution of income would lower returns on risk-taking, and hence result in lower overall investment and weaker trend growth (though Friedman pointed out that redistribution itself was a matter of societal choice). Kuznets noted that as per-capita income rises (e.g., during the early stages of development), incomes become initially less well distributed. Skewed income distribution may result from ample labor supply (relative to capital) in the early stages of development (e.g., China in the past few decades). Over time, as per-capita income reaches higher levels, Kuznets posited that income would become more evenly distributed as excess labor supply recedes and as political pressures lead to redistribution (a process that now also seems to be underway in China). And more recently, William Easterly argued that society must focus on equal "rights" rather than aid or charity to address poverty, with philanthropists and even the World Bank coming under fire for failing to address its root causes.

From the preceding discussion, it is clear that the economics profession has long grappled with trying to understand what causes poverty and the unequal dispersion of income. That discussion also helps frame the issues of income distribution, economic efficiency and growth.

Arthur Okun argued that inequality and economic efficiency posed trade-offs. Specifically, in his view, economic efficiency would result in some inequality. Attempts to reduce inequality via redistribution would sacrifice economic efficiency and long-term growth potential.

Okun's view (which echoes those of some classical economists, as well as Friedman and Kuznets) has recently come under greater empirical scrutiny. In particular, recent cross-country analysis by staff economists at the IMF notes that greater income equality is associated with more sustainable growth. Specifically, their work concludes that lower levels of inequality are correlated with faster and more durable growth, and that redistribution of income is only negative for growth in extreme cases. Put differently, there does not appear to be a large trade-off between redistribution and growth, as posited by Okun (and others).

Various writers (including the IMF staff) have pointed out that inequality of income distribution can also be harmful to growth because it may lead to poor political and policy decisions that impede growth and reduce economic efficiency (such as poorly designed tax systems). Another line of argument is that the ability of the population to obtain human capital depends on having a minimum level of income (education can become unaffordable below a certain income threshold), as evident in "poverty traps" which make it difficult for a vast part of the population to increase its income (as Marshall foresaw). This is especially the case for extreme poverty. Growth is then impaired, which creates a negative feedback – reinforcing extreme poverty.

Income inequality also has potential political dimensions. It may contribute to the increase of plutocracy (the outsized influence of the rich on the political process) as well as populism (owing to resentment against unequal outcomes as well as stagnating or falling living standards). As noted, those political outcomes can, in turn, potentially precipitate sub-optimal policy decisions and growth outcomes.

In our own work ("The Age of Plutocracy?"), we have noted the tendency for skewed income and wealth distribution to impact political and policy outcomes (for example, the changes in tax policy in the post-crisis period in many advanced economies). Of course, the influence of money in politics may also reflect other factors, for example changes to campaign finance laws in the US or the high cost of running successful political campaigns.

Equally, we have noted in our research the surge in political populism in the post-crisis period, for example the influence of "tea parties" in the US and Europe, which most probably owe some of their political strength to popular resentment against high unemployment, stagnating or falling real incomes, and the uneven ("unfair") application of austerity and reform policies. Political uncertainty and even occasional political "gridlock" owing to "protest politics" may also be handicapping economic recovery, could hinder policy efforts to improve economic efficiency, and may impair long-term growth potential (e.g., much-needed economic reforms in Europe).

However, while income inequality is a complicated, controversial, and multi-faceted issue, we believe that the social and economic advantages of policies that help create jobs for the poor are both simpler and clearer.

As a result, the remainder of this white paper focusses on policy recommendations to help educate and reskill workers and create jobs. We recommend that policy makers increase spending on re-skilling, remove barriers to the creation of high-skilled jobs, and allow investors in education to capitalize on their investments. We argue that government partnerships with philanthropic bodies in the developed world can help improve educational outcomes, while corporate partnerships can improve health and financial inclusiveness outcomes in the developing world, with significant positive knock-on effects for employment. And we suggest a variety of measures to incentivise more widespread adoption of impact investing, and encourage business to pursue impact-aligned objectives.

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Recommendation 1: re-skilling

Introduction

As discussed above, the opening of China and the former Soviet countries to the world economy changed the labor-capital balance on a global scale. The gigantic pool of new labor accessible to the world economy significantly decreased the relative value of labor compared to capital. However, a simplistic framework of labor and capital lacks the important distinction between different qualities of labor that come with the different skill-sets of individuals. Work itself evolved through the 20th century under the forces of innovation and advances in technology. It takes less human labor to grow food and build products, but it takes more human knowledge and ingenuity to innovate, raise productivity and manage complex systems. Global demand for high-skilled labor has increased, and led to a growing gap not just between the returns to capital and labor, but also between the returns to different skill-sets.

As the 21st century unfolds, we see that a large part of the world's workforce is not properly prepared for the evolving global labor market. The resulting skill gaps could create large imbalances, which may lead to undesirable outcomes. Rising income polarization, growing pools of unemployed and under-employed workers, and soaring social costs are real possibilities – and could place a permanent drag on growth and attempts to raise living standards.

These are daunting challenges for business leaders and policymakers. National governments will need to formulate long-term plans to raise the output of educational systems and eliminate barriers to job creation. The traditional model for providing secondary and tertiary education will need to be transformed in both developed and developing economies. In short, policymakers, business leaders, and workers themselves must find ways to bring education, training, and job creation into the 21st century.

The role of education

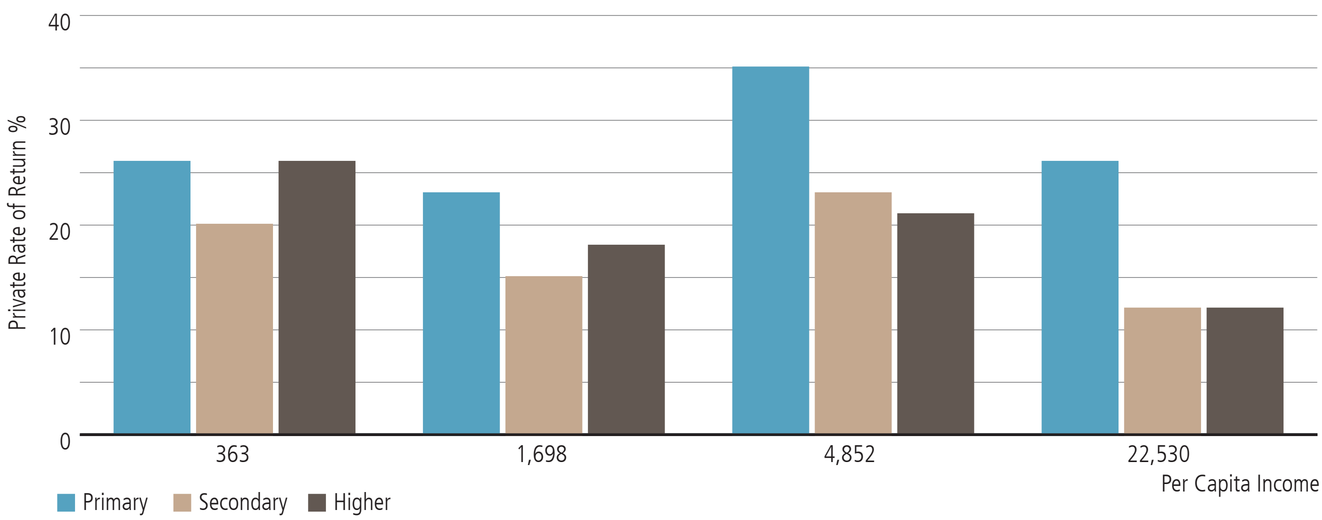
Re-skilling and education should lie at the heart of any efforts to narrow the gap between the bottom and the top of the pyramid. One cannot rely on future economic growth alone to "develop out of poverty", as has happened in China over the past two decades.

The benefit of education is evident. The returns to education based on human capital theory have been examined for 60 years, with overwhelmingly positive results. An additional year of schooling provides double-digit returns to all income classes in developed and developing countries, and the lower the income level, the stronger the effect. Education is therefore a particularly efficient tool in overcoming the poverty trap and narrowing the income gap. The below chart shows the private rate of return to primary, secondary and higher education for three groups of countries at different stages of economic development (Psacharopoulos & Patrinos 2004).

Given accelerating technological development, a more global labor market and a further increase in supply of low-skilled labor, the rationale for an educational revolution is compelling. We argue that four major developments would need to be addressed to create an educational system to cope with the challenges of the 21st century's labor market: (i) aligning education with employment demand; (ii) vocational education (German model); (iii) making use of new technologies; and (iv) raising secondary school capacity, particularly in developing countries.

Simply educating people as highly as possible is not the route to success. Rather, the key is to provide education that fits changing requirements. The objective should be to allow a majority to develop the skills that afford them a fair chance in a demanding labor market. Addressing the mismatch

Private returns to investment in education by income level (Psacharopoulos & Patrinos 2004)



Source: Psacharopoulos & Patrinos, 2004

between skills and requirements should be the primary goal of a modern educational system. This holds true for developed economies, which have a growing number of people that are under-educated, or educated in the wrong skills, and who therefore cannot enter the labor market. High unemployment is not just a burden for the individuals who find themselves in such a situation; it also leads to a loss of skills and recent work experience, and hence destroys future economic potential and further widens the gap between the winners and the losers in the changing labor market. It also holds true for developing countries such as China that have a growing number of university graduates who cannot find jobs that suit their educational level because the economy has not yet developed enough middle-class jobs; here, too, education is not linked closely enough to the needs of the economy.

The experience of high unemployment in Europe since the Eurozone crisis has revived discussions on the optimal form of secondary education. The German model of vocational education has gained increasing attention, since it ought to reduce unemployment, particularly among the young. In the UK, for example, the government has made attempts – for example, by encouraging the expansion of apprenticeships – to copy the system to spur job creation in manufacturing. Such discussions also need to take place in other parts of the world, since vocational education is an ideal instrument for institutionalizing exchanges between businesses and schools. Such a system allows for a faster diffusion of ideas, which helps education and training keep pace with the fast-changing labor market.

Furthermore, new technologies have huge potential to revolutionize education. Developing countries in particular must leverage the falling marginal cost of education being driven by information technology. Millions of students do not have access to an expensive, traditional university infrastructure, and could profit from a more distribution-oriented digital education system. This would also create scope for education and training that is more work-specific and user-orientated. Even the advanced economies are not even close to making full use of such technological advances.

Moreover, the digital revolution might also help developing countries to raise secondary school capacity. Improving the standard of education is a precondition for creating a more diversified and advanced economy.

Beyond the long-term approach of an educational revolution, other policy reforms would also help developing and advanced economies to address the negative, short-term consequences of technological change and globalization, while smoothing the path to modernization.

Developing economies

Despite the great diversity of developing countries, most still need to both modernize economic production and improve education. Developing economies need to move up the value chain, keep high-skilled production within their borders, and train their populations accordingly.

A first measure would be to increase diversified employment in manufacturing. This is particularly true for countries that are dependent on a few dominant sectors (mainly energy); they need to diversify to create more jobs that need higher qualifications. China is a good example of an economy that has climbed up the value chain – all the way from an agricultural economy to a producer of smart phones.

Secondly, barriers to growth and job creation should be removed – particularly with regard to trade. There is huge potential for emerging economies to profit from international collaboration, especially with more developed economies. Economic openness leads to growth and employment. This knowledge transfer can spur modernization and allow countries to move up the value chain. Governments should provide suitable institutions, training and transfer mechanisms to ease the negative consequences that might accompany openness to trade and capital.

Thirdly, developing economies need to remove the barriers to housing and infrastructure investment. This sector provides large employment opportunities, has great potential to stimulate future economic growth, and involves the use and development of modern technology that further spurs modernization.

Advanced economies

One reason for the high unemployment and resulting income inequality in advanced economies is the increasing mismatch between skills and the requirements of the labor market. Apart from an educational revolution, advanced economies must try to implement short-term policies to smooth the process of adjustment. Work opportunities for less skilled workers can be created by supporting non-tradable industries with subsidies for job preservation and promoting domestic production. It is key, however, to identify industries that have the potential to graduate from public support after getting such a kick-start. Supporting the training and employment of those that have left (or have yet to enter) the labor market through government support in home care, education or healthcare could be another example of a successful employment policy.

According to a study by the OECD from 2012, the following policies need to be in place to ease the process of economic adjustment (reducing income inequality while increasing economic output): an efficient tax and redistribution system, equal access to education, reasonable wage and employment protection, and the successful integration of immigrants and minorities into labor markets. Related to these measures, the most successful method in recent decades of reducing income inequality and helping overcome the poverty trap in many advanced economies has been the integration of women into the labor market.

Governments should not carry the burden alone. An education revolution and the successful implementation of short-term smoothing measures can only be achieved in collaboration with business.

What can business do?

A growing view is that business has a responsibility to help reform the education system and create the technological progress needed to deliver more equally distributed economic prosperity. It is businesses that are the first to become aware that technological changes are happening, and it is business that can anticipate best what kinds of skills will eventually help people find jobs that provide a reasonable standard of living. Business must therefore play an important role in the reformation of the education and training system.

The more active participation by business in the education process must be institutionalized. The German model of vocational education offers a good example. The close relationship between businesses and schools establishes a permanent information transfer system and fosters social responsibility on the part of businesses. Such a framework provides a more flexible education system that adapts quickly to the changing requirements of the labor market.

Moreover, it is the responsibility of business to provide more flexible employment structures that involve and retain a broad labor base, including people with children, older workers and immigrants.

However, even assuming that a country achieves a uniquely high standard of educational provision, whether it can retain this educational edge remains an issue.

How to overcome the educational "prisoner's dilemma"

A central obstacle to high investment in education is that education is a quasi-public good. It is difficult for an investor in education to fully capture the benefit of that investment, since the recipients can change companies and even move abroad. The Eurozone crisis offers a compelling demonstration of this fact. Millions of highly educated workers from peripheral Europe emigrated to offer their skills to northern European countries. The southern European countries were left with little to no return on their investment in education. At the same time, the target countries of emigration were able to profit from highly educated personnel without making the initial investment.

In an environment of high-skilled labor scarcity and significant education costs, this "brain-drain" issue becomes crucial to the success or failure of an economy. In effect, a system is established that leads to sub-optimal outcomes, akin to the "prisoner's dilemma". No country has an incentive to provide education, since any given country is better off free-riding on the investments made by other countries. The result is a system where no country invests in education and all countries are worse off. We offer two institutional solutions to overcome this.

The first is applied in the USA: a student loan system that provides incentives to stay within the country's borders after graduating. For education that is provided by businesses, it may even bind the student to the company that paid for its education. The downside of such a system is that it constrains labor flexibility – especially in Europe – and to some extent goes against the idea of education as a public good and the principle of the free movement of labor.

A second, more progressive solution could be an inter-governmental transfer mechanism that compensates countries for providing education. Such a solution might be suitable for open systems with public education. A positive side-effect could be that countries might specialize in providing education as a service traded internationally. To sustain an open system with quality education, such an incentive mechanism could be a global solution to overcome the educational "prisoner's dilemma".

Summary

In this section, we analysed policies and institutions that could help close the gap between the bottom and the top of the pyramid. Our recommendation to policy makers is to put education and re-skilling at the centre of the discussion. Both advanced and developing economies face the challenge of a growing mismatch between skills and the requirements of the labor market. Even though there is no one-size-fits-all solution, it is evident that an educational revolution combined with more short-term policies to smooth economic adjustments is needed. Education must reflect labor market needs and adjust more quickly to changing requirements. Developed countries should increase spending on re-skilling, and welfare should reflect the greater opportunities open to the higher-skilled. Developing countries must remove barriers to growth, modernize and diversify their economies to create high-skilled jobs. And an incentive structure needs to be developed to reduce "brain drain" and allow investors in education to capitalize on their investments.

Literature

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Recommendation 2: philanthropic partnerships

Giving is set to increase

Over the past 25 years, the number of billionaires in the United States has grown five-fold – a trend that has coincided with a surge in philanthropic giving. At the time of writing, 127 billionaires have signed The Giving Pledge, a campaign founded by Warren Buffett and Bill Gates, to give at least half of their fortunes to charity. In the years ahead, the scope and pace of philanthropic spending seems set to increase further still.

Firstly, today's (younger) billionaires tend to look for results sooner, and foundations are both spending money faster and targeting shorter institutional lifespans. For example, the Bill & Melinda Gates Foundation is mandated to last no longer than 50 years after the death of the sponsors. This is in marked contrast to the Rockefeller and Carnegie foundations, which were set up with plans to exist long after their sponsors had died.

Secondly, wealth today is growing most sharply where economic growth is highest: in the developing world. The recent announcements that a group of Indonesian philanthropists will fund a USD 300 million sustainable health fund in the country, and that Jack Ma, co-founder of Alibaba, will put around USD 3 billion into a new philanthropic trust, highlight that this growth in wealth may coincide with growth in giving. This is highly promising given that, on an inflation-adjusted basis, philanthropic giving in the developed world is beginning to stagnate.

Thirdly, we should also note that in the US, much of the growth in philanthropy is actually coming from the middle class, and developments in technology are helping to make both charitable donation and funding projects ever easier. According to estimates from Crowdsourcing, charitable giving represented 38% of total crowdfunding in 2012 – a sum equivalent to USD 1 billion. In a previous white paper, we discussed how the financial services industry might need to invest further in this space. This could mean that banks eventually begin to act as intermediaries between rich individuals and social programmes that lack full funding. This has the potential to significantly increase both the volume and ease of philanthropic giving.

Challenges

The current situation has reminded some of the US Gilded Age in the late 19th century, when the likes of Andrew Carnegie and John D. Rockefeller undertook vast philanthropic efforts in fields as diverse as education and medical research.

But modern philanthropists face greater challenges than those in the past. Even if the pace and scope of giving increases from today's levels, a key difference from the Gilded Age is that the wealth of today's billionaires is much smaller relative to modern government spending, corporations, and the size of the economy overall. As an example, Rockefeller and Carnegie were able to donate, over their lifetimes, sums in excess of a year's US government spending at the time. Such sums are inconceivable in the modern day – the equivalent of USD 6.1 trillion.

This relative lack of "scale" means modern philanthropists seeking to improve the lot of the world's poor need to target giving carefully, invest funds sustainably, and work with partners to ensure that giving is most effective. As Warren Buffett has said, "making money is far easier than giving it away effectively".

In the previous section, we described how re-skilling is a critical part of improving the life chances of the poorer members of society. Developing countries need investment in skills to help their economies move up the value chain, while developed economies need investment in education to help improve work opportunities for the lower-skilled. We noted both government-led and business-led solutions. This partnership is critical in the philanthropic space, given its relative scale.

Partnerships under strain

The post-financial-crisis environment of austerity has made public-philanthropic relationships all the more vital, but has also strained ties, with suspicions that governments may be implicitly asking the charitable sector to step in where the government is stepping back. In the UK, the Conservative Party's "Big Society" policy came in for such criticism.

Similarly, the debate over tax deductions on philanthropic giving has intensified. In the US, President Obama has made a number of attempts to limit deductions, and in the UK Chancellor Osborne was forced into a U-turn after plans to cap tax deductions were met with popular protest.

But both criticisms mistakenly assume that government and philanthropic spending should cross-subsidize one another. In absolute spending terms, the philanthropic sector is miniscule in the context of government. It is never going to be in a position to out-do, or even meaningfully supplement, government. For context, philanthropic spending on education in the US represents far less than 1% of government expenditure on education.

Similarly, government tax breaks on philanthropic giving can be criticized on the grounds that they divert government funds towards areas such as art galleries or universities that do not necessarily improve the lot of the country's poorest. But the diversion is small in the context of the budget deficit. Simon Johnson and James Kwak, two economists who have criticized tax deductions, estimate the break at USD 53 billion, in the context of a c. USD 500 billion budget deficit.

Operating effectively

The way philanthropy can most effectively help is not through pure spending, or cross-subsidy, but rather through partnership. Philanthropy is most effective when the focus is on providing projects that stimulate innovation and catalyse change. Scale can be provided by government or corporations.

An example of this in the education sector comes in the US, where a number of state and local governments have set up formal Offices of Strategic Partnerships to link charities with local governments. Michigan's Office of Foundation Liaison helped link public and philanthropic partners, including the W.K. Kellogg Foundation, to set up an Early Childhood Investment Corporation, an initiative to improve the learning and development of young children. Greater steps towards governmental-philanthropic partnerships such as this should be welcomed, and have the additional benefit of helping avoid concerns that foundations may be "experimenting" with new educational strategies.

Of course, the situation in developing countries is rather different, and partnerships with government can be made more difficult in autocratic or bureaucratic environments. And outcomes in education and employment are inextricably linked with other issues, such as improving health outcomes and increasing financial inclusiveness. Corporate partnerships can be particularly effective here.

In healthcare, the Bill and Melinda Gates Foundation provided USD 200 million through the PATH Malaria Vaccine Initiative to help pay for paediatric trials which vaccine developer GlaxoSmithKline was initially reluctant to fund on its own. The funding eventually resulted in the development of the RTS,S vaccine, which has been reported to reduce malaria cases in young children by c.50% and in infants by c.25%.

A prominent example of boosting financial inclusiveness comes from M-Pesa, currently the largest mobile money system in the world, operated by Safaricom and Vodafone. It was initially financed by a philanthropic grant by the UK's Department for International Development. Today, more than 40% of Kenya's GDP flows through the mobile money system, with millions of people who would not otherwise have bank accounts able to send and receive money, increasing the speed at which money flows, allowing rural businesses to expand and employ workers, and improving the lives of the country's poorest.

Both examples represent the type of partnership that should be encouraged, and opportunities to collaborate should be actively sought by philanthropic foundations, governments and corporations.

Such partnerships leave the "investment" phase in the hands of the philanthropic sector, while passing the "operational" phase into the hands of the private sector. This approach can be effective in helping ensure long-run sustainability, since private-sector operators are incentivized to run the projects as efficiently as possible. This is useful at a time when philanthropic foundations are coming under greater scrutiny from donors about programme effectiveness.

Of course, projects are not the only place where philanthropy co-invests with companies, and with over USD 700 billion in assets in the US, foundations represent major global investors in equity and bond markets. And if philanthropic giving is indeed set to increase, the power held by these foundations to influence corporate behavior is set to increase commensurately, particularly if it comes alongside a wider shift in the investment industry towards sustainable investing.

Conclusion

Philanthropic giving has surged alongside the wealth of the world's richest. But, unlike during similar surges in giving in the past, it remains very small in the context of government or corporate spending. Our recommendation to policy makers is to recognize that philanthropic giving is most effective when funds are invested sustainably, and when spending is made in partnership with government or corporations. Government partnerships in the developed world can help improve educational outcomes, while corporate partnerships can improve health and financial inclusiveness outcomes in the developing world, with significant positive knock-on effects for employment.

The pace and scale of philanthropic giving seems set to increase given the changing demographic profile of today's rich. Ensuring these funds are used effectively is critical, but they could potentially be used to make an increasing difference to the world's poor.

Recommendation 3: incentivize impact investing

How impact investing can play a role in alleviating poverty by encouraging employment

With many governments facing significant fiscal challenges, and philanthropic organizations having limited resources, private investors have a potentially significant role to play in addressing social challenges. Impact investing offers an opportunity to creatively fund projects that may otherwise go unfunded.

For the purposes of this white paper, we have chosen to adopt the Rockefeller Foundation's definition of impact investing as making "investments intended to create positive impact beyond financial returns". This requires that the business into which the investment is made is designed with the intent of making a positive impact as well as a financial return. Under this definition, impact investing can involve a wide range of investors, sectors and goals.

In essence, impact investing can help bridge the gap between the investment paradigm, based predominantly on financial risk and return, and a charitable focus. And it can help directly alleviate poverty on at least two fronts: by creating sustainable, "quality jobs" for the low- and middle-skilled unemployed, and by increasing skills and education to increase the income potential of both the unemployed and under-employed.

Stimulating employment is of particular importance, as even highly successful efforts to increase educational attainment, job relevance, and boost retraining are not expected to be sufficient to reduce the growing surplus of low- and middle-skilled workers. The McKinsey Global Institute estimates that all of these education measures together would reduce by just 12 million the expected 38 million of potential surplus middle-skilled workers. That would leave more than 25 million workers who would likely join the ranks of the unemployed or under-employed, unless demand for this kind of labor can be increased.

What must be done to incentivize investors

Because of impact investing's dual social and financial goals, mainstream investors often assume that impact investments always generate below-market returns. While the veracity of this assumption has been challenged, the perception that it is the case has resulted in many investors arguing that their fiduciary duties prevent them from making these types of investments.

As a result, while investors could theoretically include commercial banks, community development companies, dedicated investment funds, finance institutions, foundations, pension fund managers, and private wealth managers, in practice the World Economic Forum's (WEF) "From the Margins to the Mainstream" report found that the primary asset owners allocating capital to impact investments remain effectively limited to just development finance institutions, family offices, and high-net-worth individuals. And even there, penetration remains relatively low.

Only 17% of foundations surveyed in 2011 held mission-related investments. In fact, the WEF report estimated that even many of the leading proponents of impact investing may not be investing more than 5–10% of their endowments in impact investments currently. And if there is an expected trade-off between profit and purpose, liability-constrained investors like pension funds and insurance companies will not invest, given their "sole purpose"/ fiduciary responsibilities. A survey of 50 US-based pension funds with combined AuM totaling USD 800 billion, referenced in the WEF's "From the Margins to the Mainstream" report, found that only 9% of respondents felt impact investing was a viable investment approach, and just 6% were actually making impact investments.

But herein lies the opportunity. Along with greater discourse around the trade-off between returns and social impact (impact investments often enter into areas where markets have failed, and therefore offer significant financial upside), our recommendation to policy makers is to consider:

– *New structures for investors*
  New, innovative investment structures are needed to allow investors to directly benefit from successful employment creation, including social impact bonds[1] linked explicitly to employment creation. One avenue to explore would be to obtain government commitments to use a proportion of the savings that result from new employment to reward non-government investors in social-impact-styled bonds that explicitly fund the activities that create these new "quality jobs". These bonds could also be structured such that a private foundation guarantees a proportion of the principal, giving philanthropists an opportunity to leverage their balance sheets for more impact.

– *Investment return "normalization"*
  Incentives must be used to address the perceived difference between impact returns and general investment returns. One avenue to explore is the introduction of franking credits for employment-creating impact investments, whereby the tax paid by the underlying investment is credited back to end-investors against the tax that they are required to pay on their investment income. An additional advantage of using this form of incentivization is that it does not represent additional net cost to governments. In fact, if successful in generating new investment, it would prove to be a net fiscal benefit to governments, creating additional tax revenues and lowering expenditure on unemployment benefits.

1 Impact investing can also take many forms, with equity, debt, and deposits all commonly used investment structures. More recently, innovative investment structures such as the UK's Social Impact Bonds have allowed investors to also directly benefit from successful social impacts. Social Impact Bonds are a pay-for-success contract in which a private investor provides investment capital to fund a socially motivated investment. The investor is then paid a financial return based on the savings actually achieved as a result of successful intervention. For example, fewer people in prison save the government money, with investors being paid out of these savings. These bonds are also often structured such that a private foundation guarantees a proportion of the principal, allowing philanthropists an opportunity to leverage their balance sheets for more impact.

– *Greater participation by mainstream intermediaries*
Companies like UBS must play a far greater role in distributing and promoting impact investment opportunities. The WEF's "From the Margins to the Mainstream" paper highlights issues caused by the limited mainstream intermediaries in the impact investment sector, which instead is served by small and specialized players. The scale of the intermediaries involved in distributing impact investments needs to increase in order to meaningfully increase penetration of the mainstream investor base, as investors typically buy products from names they know, not from small specialists. While increased financial industry regulation post the great financial crisis presents additional hurdles to participation by larger institutions, these must be overcome. Increasing the scope and size of the impact investment opportunities made available by mainstream, global wealth managers to their clients is a critical step in helping grow the impact investing industry.

What must be done to incentivize corporate behavior
Business can also pursue impact-aligned objectives by many means, focusing on both products and processes. Our recommendation to policy makers is to:

– *Strengthen policy and tax incentives for corporates to engage in "quality employment" generating projects.*
The World Economic Forum's "The Next Billions" report in January 2009 called for governments to strengthen policy and tax incentives for "Bottom of the Pyramid" business engagement. A logical extension of this would be to also strengthen policy and tax incentives that lower the effective return thresholds for providing employment to unemployed or underemployed people at the "Bottom of the Pyramid", in both developing and developed markets.

This proposal is similar in principle to the approach various European countries have taken regarding the "marketization" of home production. For example, Germany introduced tax deductions for employing domestic workers under its "mini-jobs" programme for unemployed and marginally employed workers in 2003, while Sweden in 2006 introduced a 50% tax deduction for wages paid for household services, including child care, cleaning and washing. These sorts of programmes are also generally much cheaper for governments than paying the social costs associated with unemployed persons remaining unemployed – particularly once the newly employed subsequently start paying their own income taxes.

– *Widespread education and company certification based on new impact investing employment initiatives.*
The McKinsey Global Institute's "The World at Work" report calls for companies to focus their corporate social responsibility efforts around issues of youth unemployment and finding jobs for the long-term unemployed, highlighting Diageo's UK-based charity Tomorrow's People as a key example. One avenue to explore that would help facilitate this change of corporate focus would be government- and industry-funded education and company certifications, raising public awareness and encouraging changes in consumer behavior.

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UBS AG
P.O. Box, CH-8098 Zurich
P.O. Box, CH-4002 Basel

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