IESE Business School
University of Navarra

International Economic Overview

Year 27 / No. 9 / June 2014

Index

Closing date: June 12, 2014

The Future of Spanish Pensions

Julián Díaz-Saavedra and I recently finished our latest article on the future of the Spanish pay-as-you-go pension system, following the 2011 and 2013 reforms[1].

We found that these reforms extend the number of years of contributions used to compute the pensions, delay retirement ages, introduce two sustainability factors and effectively transform the Spanish pay-as-you-go system into a defined-contribution system. We also found that they succeed in making Spanish pensions sustainable until 2037, but fail to do so afterwards.

The success of the reforms up until 2037 is achieved by reducing the real value of the average pension, but leaving many shortcomings in contributivity and the transparency of the system completely unchanged. The reduction in pensions, mandated to restore the sustainability of the system while preserving its nature, is progressive. By 2037, the average pension will be approximately 20 percent smaller in real terms than what it would have been under the pension rules prevailing in 2010.

The failure of the reforms after 2037 is due to the fact that, from that year onwards, more than 40 percent of the Spanish retirees will be paid the minimum pension, which is exempt from the sustainability factors. According to our simulations, if the reforms were allowed to run their course, by 2050 the real value of the average Spanish pension will have been reduced by almost 30 percent and more than 50 percent of the Spanish retirees will be paid the minimum pension.

We conclude that the Spanish pension system, as it stands today after those reforms, is a very inefficient way to manage the savings for retirement of Spanish workers. We conjecture that further reforms are due for Spanish pensions.

The Spanish pension system, as it stands today after recent reforms, is a very inefficient way to manage the savings for retirement of Spanish workers.

The Problem with Spanish Pensions is Demographic

In our article we calibrate an enhanced version of the model economy described in Díaz-Giménez and Díaz-Saavedra (2009)[2] to the Spanish post-recession macroeconomic scenario in 2010. We simulate the latest demographic scenario published in 2012 by the *Instituto Nacional de Estadística* (INE) and we show that, under the rules previous to the reforms, between 2010 and 2050, pension system revenues would have remained virtually unchanged, while pension system expenditures would have almost *doubled*.

Pension expenditures increase for three reasons: because (1) the size of the retiree cohorts increases, (2) longevity increases, and (3) retiree cohorts become more educated. According to the INE's 2012 demographic scenario, the share of Spanish residents aged 65 or more was 20.9 percent in 2010, and will be 43.6 percent in 2050.

Meanwhile, life expectancy at age 65 was 17.4 years in 2010, and will be 23.4 years in 2050.

[1] See Díaz-Giménez, J. and J. Díaz-Saavedra. "The Future of Spanish Pensions". Unpublished manuscript (2014).
[2] See Díaz-Giménez, J. and J. Díaz-Saavedra, "Delaying retirement in Spain." *Review of Economic Dynamics*, 12: 147-167 (2009).

The severity of demographic changes that are set to take place spells doom for any pay-as-you-go, defined-benefit pension system such as the one prevailing in Spain in 2010.

Our simulator works like any other simulator – say a flight simulator or a racing car simulator. It is a computer program that simulates a situation that would have been prohibitively expensive or downright impossible to experience in the real world.

We trust our results because our simulator closely replicates Spanish macroeconomic ratios, the Spanish distributions of earnings and wealth, and the retirement behavior of Spanish workers in 2010, which is our chosen calibration year.

Table 1. The Reference and Reformed Economies in 2010, 2030 and 2050

Model	Rev	Exp	Def	PRF		AvP	RAvP	PSR	Min P	Y	K	L
Results in 2010												
All	11.1	11.3	0.2	6,7	21.1	100.0	100.0	50.5	21.5	100.0	100.0	100.0
Results in 2030												
P2010	10.3	13.7	3.4	–28,7	29.3	123.7	100.0	36.1	35.0	129.4	133.0	102.7
R2013	10.6	12.2	1.6	–7,4	24.9	121.7	98.3	40.5	34.8	131.6	133.7	105.2
RPRI	10.5	10.8	0.3	3,0	21.1	110.3	89.2	36.4	41.6	134.9	137.6	107.8
Results in 2050												
P2010	9.6	20.1	10.4	–212,5	45.5	187.0	100.0	38.8	29.2	166.1	177.7	87.5
R2013	9.9	17.7	7.7	–123,6	39.1	178.1	95.2	40.9	30.3	169.8	179.8	89.8
RPRI	9.4	11.7	2.2	–27.7	26,6	133.4	71.3	30.8	52.6	182.0	190.2	96.7

Rev: Revenues (%GDP); Exp: Expenditures (%GDP); Def: Pension system deficit (%GDP); PRF: Pension reserve fund or pension system debt (%GDP); consumption tax rate needed to finance the pension system (%); AvP: Average pension (2010=100); RAvP: Average pension relative to the average pension in Model Economy P2010 (2010=100); PSR: Pension Substitution Rate (average pension as a share of the average wage of workers in the (60-64) age group); MinP: Share of the retirees who receive the minimum pension (%); Y: Output index (2010=100); K: Capital index (2010=100); L: Labor input index (2010=100).

P2010: This is the benchmark model economy. Its pension system replicates the pay-as-you-go, defined-benefit pension system that prevailed in Spain before the 2011 Reform and the 2013 delay in the first retirement age.

R2013: The pension system of this model economy replicates the pay-as-you-go, defined-benefit pension system that resulted from the 2011 Reform and the 2013 delay in the first retirement age.

RPRI: The pension system of this model economy replicates the pay-as-you-go, defined-contribution pension system that results from the application of the Intergenerational Equity Factor and the Pension Revaluation Index.

Furthermore, the share of Spanish workers who had completed college was 20.7 percent in 2010, and will be 26.0 percent in 2050. The nature of these changes is demographic and completely unrelated to the 2008 recession. Their severity spells doom for any pay-as-you-go, defined-benefit pension system such as the one prevailing in Spain in 2010.

The Model Economy

To make the predictions that we summarize in Table 1, we calculated a model economy designed to replicate the consumption, savings, employment and retirement behavior of Spanish workers.

Our simulator works like any other simulator – say a flight simulator or a racing car simulator. It is a computer program that simulates a situation that would have been prohibitively expensive or downright impossible to experience in the real world. Instead of real people and real firms, our simulator has rational people and rational firms who solve constrained maximization problems. Our simulator also has a government that collects taxes, as well as runs and reforms a pay-as-you-go pension system. The tax system and the pension system in our simulator resemble very closely those of Spain.

The inputs for our simulator are a macroeconomic scenario, a demographic scenario and a set of fiscal policy and pension system rules. Its outputs are the optimal decisions of our simulated workers and firms, and the statistics that describe the future behavior of our simulated economy and the finances of our simulated pension system, including its deficits, its accumulated debt, the real value of the pensions that it pays out and the extra taxes needed to finance the pension system deficits.

Naturally, when the pension system rules change, the consumption, savings, employment, and retirement decisions of our simulated workers also change, while the pension system revenues and expenditures also change.

We trust our results because our simulator closely replicates Spanish macroeconomic ratios, the Spanish distributions of earnings and wealth, and the retirement behavior of Spanish workers in 2010, which is our chosen calibration year. And we trust our predictions because our simulated workers respond to the changes in pension system rules in a way that is optimal, given their objectives and the constraints that they face.

Conclusions

Our conclusions are not very optimistic. The 2011 and 2013 reforms of the Spanish pension system reflect the path of least resistance. They have transformed the Spanish defined-benefit, pay-as-you-go pension system into a *defined-contribution* pension system that imposes all the current and future adjustment costs on the retirees.

A structural reform would have more evenly spread out the costs of the structural design problems of Spanish pensions. Instead, according to our simulations, the reforms implemented will fail to solve the sustainability problems of Spanish pensions in the future.

Javier Díaz-Giménez. Professor of Economics, IESE Business School

World Economic Growth is Picking Up: Emerging Troubles Ahead?

Global economic activity increased during the second half of 2013. Moving forward, a strengthening of the recovery is expected. The International Monetary Fund (IMF) projects world output growth to increase from 3 percent in 2013 to 3.6 percent in 2014 and nearly 4 percent in 2015.

Behind the optimistic projection for world economic growth is the ongoing recovery in Europe. Recent reports from the eurozone indicate that the protracted crisis, which started in 2008-2009, may be finally approaching its end. In addition, other advanced economies, such as Japan and the US, are also showing signs of relatively strong growth.

Emerging economies are expected to grow at rates close to 5 percent over the next two years. As a group, they will contribute two-thirds of the world's economic growth. However, not all geographic regions share equally positive growth forecasts. Whereas emerging economies in Asia are expected to grow at rates above 6.5 percent, other regions have recently seen their growth projections revised downward, and are expected to grow at relatively low rates. For example, for Latin America, the IMF projects a growth rate of 2.5 percent in 2014. This number is lower than the growth rates of 3.1 and 2.7 percent achieved during the two previous years.

Growth rates in emerging countries tend to be more volatile than in developed countries. Furthermore, growth in emerging countries is affected by what happens beyond their borders. Figure 1, which is taken from a recent study by economists at the IMF, shows how deviations from trend growth can be decomposed into internal factors and external factors. The latter include global financing conditions, growth in advanced economies, and international terms of trade. On average, factors external to a country have historically explained roughly 50 percent of their growth rates.

To what extent could these external factors spell trouble for emerging economies in the near future?

Over the past year, a major concern was over the tightening of global financing conditions. Countries financially integrated with the rest of the world can be negatively affected by tighter monetary policies in advanced economies. The concern is that when all the major developed countries return to growth, and also reduce their unemployment rates, monetary policy will eventually reverse its sign, and put pressure on global financial conditions.

Actually, this concern is a bit overstated. It is true that a higher US interest rate strains access to finance all around the world, but it comes as a response of an improvement of US economic activity. Increased economic activity, in turn, has a positive effect on emerging country growth. Estimations using historical data show that the net effect of these two forces had been positive in the past; a one-point increase in the US growth rate was associated with 0.3 additional points of growth in emerging countries. The effect on emerging economy growth was positive even after taking into account the related increase in US interest rates.

If this relationship continues to hold in the future, then for the average emerging economy more growth in the US (and, more generally, in advanced economies) is a good deal. However, countries with negative current accounts or high debt levels, who rely on external financing, could get in trouble. But then, the real issue is a home-grown problem, rather than an external influence.

Recent reports from the eurozone indicate that the protracted crisis, which started in 2008-2009, may be finally approaching its end. In addition, other advanced economies are also showing signs of relatively strong growth.

Growth rates in emerging countries tend to be more volatile than in developed countries. Furthermore, growth in emerging countries is affected by what happens beyond their borders.

Over the past year, a major concern was over the tightening of global financing conditions. Countries financially integrated with the rest of the world can be negatively affected by tighter monetary policies in advanced economies.

Another source of concern is international terms of trade. Several emerging countries export commodities and have recently seen decreases, or reduced growth rates, in the prices of their exports. This has to do with lower growth in China.

The second source of concern is international terms of trade. Several emerging countries export commodities and have recently seen decreases, or reduced growth rates, in the prices of their exports. This has to do with lower growth in China. China is not only itself an emerging economy, it is also an important buyer of commodities.

In Figure 2, China is added as an external factor that could affect the growth rate of emerging economies. The figure shows that China has been an important driver of growth in emerging markets. Two periods show a considerable upward pull exerted by the Chinese economy.

China has been an important driver of growth in emerging markets. Two periods show a considerable upward pull exerted by the Chinese economy.

The first of these periods is in the late 2000s, right before the start of the Great Recession. This episode witnessed very high growth rates in China, above 10 percent. Commodity prices moved in tandem with the Chinese economy and rose considerably over this period (the familiar relationship between the Chinese economic growth rate and commodity prices is illustrated in Figure 3).

The second episode in which China played an important role was at the exit of the recession. The pull from the Chinese economy is in part responsible for the rapid recovery of emerging economies in the aftermath of the 2009 global recession, a period during which Europe was still struggling with its own problems.

However, starting in 2012 the effect of China on emerging economy growth has been mostly negative. With the Chinese economy slipping back to lower growth rates, demand for commodities decreased relative to the previous high growth trend, affecting commodity-exporting emerging economies.

Starting in 2012, the effect of China on emerging economy growth has been mostly negative. With the Chinese economy slipping back to lower growth rates, demand for commodities decreased relative to the previous high growth trend.

The role of China in the future is uncertain. What will the pattern of consumption in China look like?

Continued growth in China means that commodity prices might continue to rise, albeit at a slower pace. Moreover, recent shifts in the composition of commodity categories are also evident in China. Rice has given way to higher-quality foods, such as edible oils and soybeans, and also meat. Copper and iron ore have recently lost ground to aluminum, tin and zinc. Coal is starting to be replaced by cleaner primary energy fuels.

Figure 1. Historical Decomposition of Emerging Market Real GDP Growth

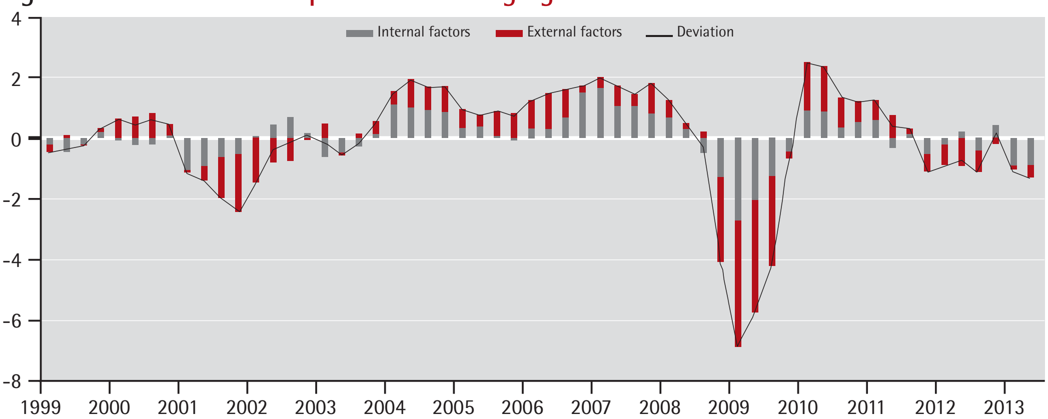
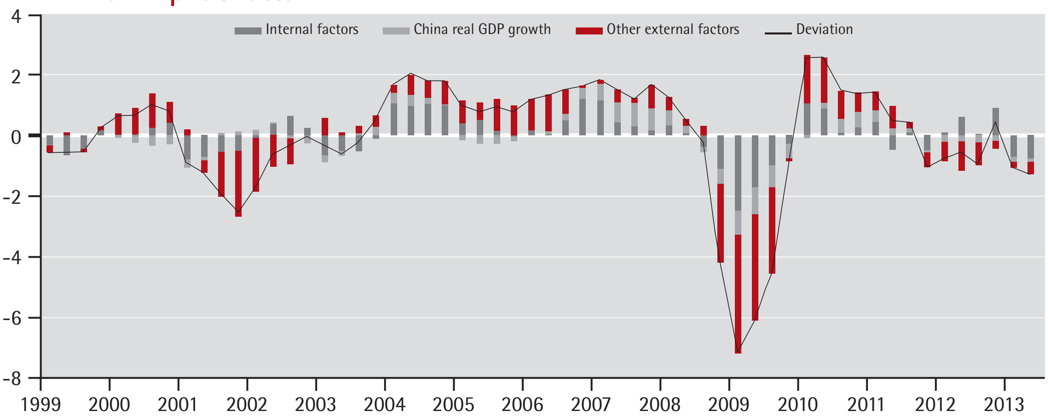
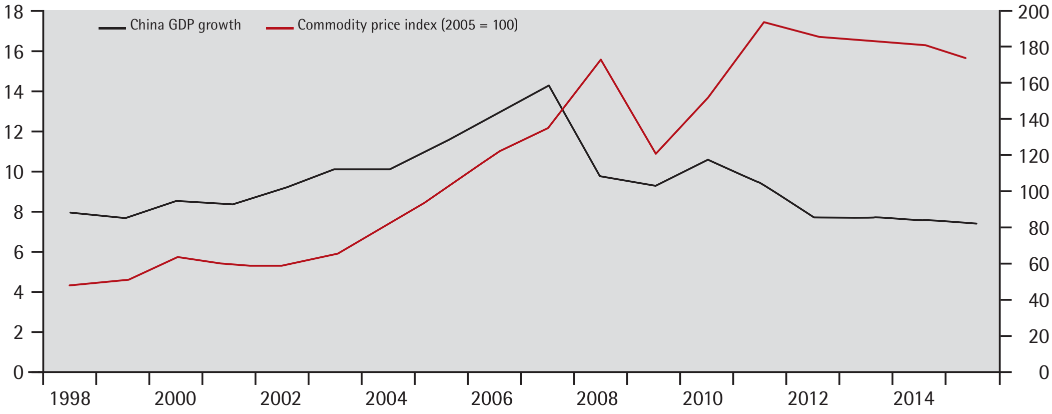


Figure 2. Historical Decomposition of Emerging Market Real GDP Growth Including China as an Explicit Factor



Source: IMF.

Figure 3. GDP Growth in China and Commodity Prices



Source: IMF.

Emerging countries heavily dependent on the classes of commodities that are being replaced will be most affected by these shifts in demand. A particular region to watch is sub-Saharan Africa. Part of its growth relies on mining investment. A shift away from copper and iron ore is likely to lead to reduced mining investment in some sub-Saharan countries, primarily in cases in which Chinese companies investing abroad are involved.

Rolf Campos. Professor of Economics, IESE Business School

Emerging countries heavily dependent on the classes of commodities that are being replaced will be most affected by shifts in demand.

Supply Matters

The US economy just hasn't looked like its old self after the financial crisis. It has grown just over 2 percent annually over the course of the current recovery. That's painfully slow by historic standards.

The US economy just hasn't looked like its old self after the financial crisis. It has grown just over 2 percent annually over the course of the current recovery. That's painfully slow by historic standards.

The recovery had appeared to achieve a breakthrough in the final quarter of 2013. The economy grew at an annual pace of 3.2 percent in the last quarter. But the economy contracted again the first quarter of this year. This weak recovery implies that more jobs have been lost in the recent recession than in any other post-World War II downturn. Making matters worse, the majority of those jobs have yet to come back, so the US is stuck in its third consecutive "jobless recovery," stretching back to the rebound from the 1990 recession.

Unrepentant Keynesians – such as Paul Krugman – argue that the solution lies in more stimulus spending. For them, the weak jobless recovery is a direct consequence of timid expansionary policies which are insufficient to jump-start aggregate demand. A sluggish demand may be part of the picture, but it cannot fully account for the extremely weak labor market. This explanation ignores the other side of the story: what is happening with individual incentives to work and why we have seen such a decline in labor supply.

The US economy has today more than 1.5 million fewer jobs than when the recession began almost six years ago. Although unemployment has fallen from its peak of 10 percent in October 2009, to 6.3 percent in April 2014, the employment-to-population ratio has barely changed during that time. This fact signifies that the decline in unemployment rate is due primarily because almost three million people are no longer being counted.

Labor force participation has declined since the beginning of the financial crisis, with no indication of recovery in sight. Prior to the recession, 66 percent of the population over the age of 16 was in the labor force. Just six years later, it has fallen to 63 percent. It constitutes a record low, not seen since March 1978.

Economic analysis links the drop in labor participation to factors such as: a) demographic issues, such as retirement of the baby

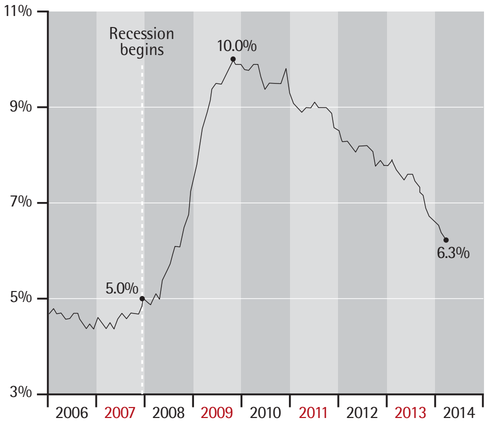
The weak US recovery implies that more jobs have been lost in the recent recession than in any other post-World War II downturn. Making matters worse, the majority of those jobs have yet to come back.

The US economy has today more than 1.5 million fewer jobs than when the recession began almost six years ago.

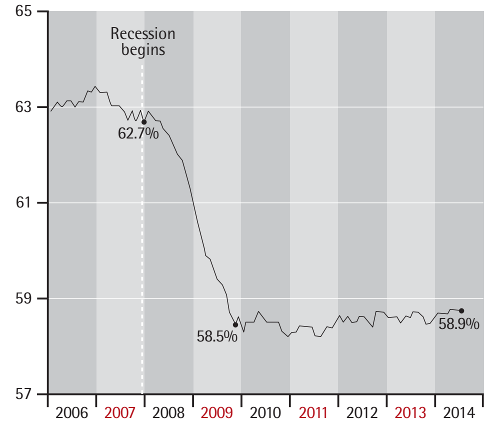
Economic analysis links the drop in labor participation to factors such as demographic issues, reduction in job opportunities and the availability of safety net programs.

boomers. The Congressional Budget Office estimates that demography accounts for one-quarter of the drop in participation; b) the reduction in job opportunities. The weak job market has certainly encouraged millions of Americans to pursue options outside the workforce; and c) the availability of safety net programs that act as a tax on working income reducing the incentives to work.

Unemployment Rate



Employment Population Ratio



Source: BLS.

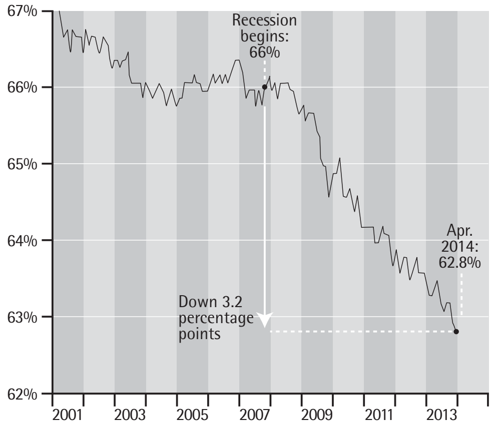
The demand for labor has recovered faster than the supply. This fact suggests that the behavior of the labor supply is key for understanding the jobless recovery that the US is experiencing.

During the recession, the number of monthly job openings – which, broadly speaking, reflects labor demand – dropped almost 50 percent. In 2009, it hit the lowest point, with 1.8 million openings lost. Since then, the number of monthly job openings has increased, almost reaching pre-recession levels.

On the other hand, the number of actual hires paints a very different picture. The gross number of hires each month also fell sharply (–1.3 million) during the recession. Unlike job vacancies, however, monthly hiring has only partially recovered since then (+0.9 million).

Thus, the demand for labor has recovered faster than the supply. This fact suggests that the behavior of the labor supply is key for understanding the jobless recovery that the US is experiencing. This is not what usually happens during recoveries; as a rule, the labor force increases much sooner than vacancies. So why do we see such a drop in American labor supply?

Labor Force Participation



Source: BLS.

One possible explanation, which is often-overlooked, is that the expansion of safety net programs by the US administration during the recent recession has decreased the incentives to work. The unemployment insurance program was expanded to 99 weeks, then 73 weeks and only recently reverted back to 26 weeks in most states – the standard, pre-recession length. In December 2013, most states had federally-funded unemployment benefits lasting between 43 and 63 weeks. As benefits began to phase out for the long-term unemployed, some financial disincentives to finding work disappeared.

Casey Mulligan of the University of Chicago, in his book, *The Redistribution Recession*, shows that government benefits, including extended unemployment insurance, explain half the recent decline in the labor force participation rate. This decline has been primarily driven by people in their prime working years – not by workers retiring or students staying in school. The labor force participation rate for those aged 25 to 54 has dropped two full percentage points since 2007, from 83 percent to 81 percent.

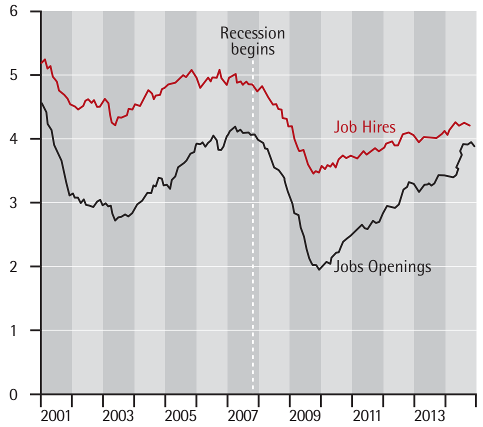
Casy Mulligan found that more generous programs have contributed to a decline in the "self-reliance" rate from 70 percent to 55 percent since 20071.

He also found that more generous programs have contributed to a decline in the "self-reliance" rate from 70 percent to 55 percent since 2007[1]. The self-reliance rate measures the fraction of a household's income that is not replaced by transfer payments or subsidies; a

[1] Casey B. Mulligan, "The ARRA: Some Unpleasant Welfare Arithmetic," National Bureau of Economic Research Working Paper No. 18591, December 2012, and Casey B. Mulligan, "Recent Marginal Labor Income Tax Rate Changes by Skill and Marital Status," Tax Policy and the Economy, Vol. 27, No. 1 (2013), pp. 69–100.

lower self-reliance rate implies decreased incentives to work, since the government provides relatively more of a household's lost income.

Jobs Opening and Jobs Hires
(in Million of Jobs)



Source: BLS.

Income-replacement programs are desirable because they provide vital support to people in difficult situations. However, they also effectively act as a tax on working since as beneficiaries earn more income, they lose their eligibility. The loss of benefits are a perverse form of taxation, which discourage out-of-work workers from seeking employment and improving their economic condition. Similarly, decreases in benefits encourage people to work by reducing marginal tax penalties to working.

Mulligan finds that the effective marginal tax rate for the median worker rose 5 percentage points between 2007 and 2013. He also shows that there is a strong correlation between increased effective marginal tax rates and reductions in work hours during and after the recession. Groups that had larger increases in their effective marginal tax rates saw employment drop by far more than similar groups with smaller effective tax increases.

Mulligan's research is an important addition to decades of empirical research that estimate the negative effects of badly designed social policies. Despite this, policymakers keep discouraging able people from participating in the labor force. The unintended consequences of their good intentions can be catastrophic. Motivated by the desire to assure a minimum standard of living to those truly in need, politicians institute perverse incentives which lead people – in their prime working years – to drop out of the labor market. Income distribution policies that destroy incentives to work are perverse, because they draw those in need into a poverty trap.

Finally, the work of Mulligan and others, makes it clear that the explanations of insufficient demand cannot explain why employment rates have not improved. So the real issue is not how much extra money the government should pump into the economy. The real issue is how we fix the incentives so both people and businesses are willing to work, produce and invest. How can we create a supportive environment for wealth creation? Remember, economics is about incentives, the rest are footnotes.

Pedro Videla. Professor of Economics,
IESE Business School

Income-replacement programs are desirable because they provide vital support to people in difficult situations. However, they also effectively act as a tax on working since as beneficiaries earn more income, they lose their eligibility.

The real issue is not how much extra money the government should pump into the economy; it is how can we fix incentives so people and businesses are willing to work, produce and invest?

IESE Business School
University of Navarra

International Economic Overview

Year 27 / No. 9 / June 2014

www.iese.edu/Alumni

Selected Activities

ALUMNI

Corporate Risk Management: A General Manager's Perspective

Warsaw, June 16

Prof. Markus Maedler

Mostly for the wrong reasons, risk management has recently become one of the hottest general management topics. Consequently, organizations of all sizes and sectors are in the process of formulating more deliberate risk strategies, strengthening their risk management capabilities, and revamping their internal risk governance systems. They do so across their entire portfolio of business risks associated with their missions, competitive strategies, business models and internal organizations.

This short presentation takes a universal and holistic approach to the many risk management decisions that virtually any general manager might face eventually. It invites you to critically reflect on some highly relevant questions about your organization's risk management. For example, how do we configure internal risk management structures and processes? How do we integrate risk with business management? Overall, do we stand the risk management litmus test?

Connecting the Dots with Big Data

London, June 25

Prof. Javier Zamora

The growing density of our digital connections is fast redrawing the boundaries of competition and reshaping the sources of customer value. This demands that we take blended approaches, not just to our business strategies, but to our organizational structures and practices. And this requires new leadership roles and digitally-minded leaders.

Current and Future Perspectives of Energy in Argentina

Buenos Aires, June 26

Daniel Gustavo Montamat

At this special session, invited speaker Daniel Gustovo Montamat will address the latest developments in the energy sector. Montamat has served as Energy Secretary of Argentina; President and Director of YPF S.E., the currently privatized state-owned corporation; and as Director de Gas del Estado S.E., the currently privatized state-owned gas corporation. He is also the author of a number of books on economics and energy.

SHORT FOCUSED PROGRAMS

Customer-Focused Organizations

Barcelona, June 16-18

Excellence in customer management requires 100% commitment from the whole organization. Many projects promoted from top management fail because they encounter resistance at various levels across different departments. This program will enable you to design a successful customer strategy by obtaining a 360-degree view of the organization. You will gain tools and insights to achieve a cultural change whereby the departments of marketing, sales, accounting, operations and human resources work together to focus on the customer and address their needs.

Real Estate in Growing Economies

Barcelona, July 1-3

The bust of the housing bubble in the US and some European countries has brought new scenarios to the real estate industry. Opportunities are moving from developed countries to growing economies such as Latin America, Africa and Asia. In this program, you will discover how to take advantage of these opportunities. You will learn how to manage real estate investments in growing economies from the scope of developers, owners, service providers and global investors.

High Performance & Creative Negotiator: From Good Deals to Great Deals

Barcelona, July 8-10

From sales contracts and budget crunches to high-profile mergers and acquisitions and project financing, senior managers dedicate most of their professional time negotiating. However, it is surprising to find that senior managers receive little or no formal training in this vital area, despite the fact that effective negotiation skills can be developed.

This three-day program is an ideal opportunity for you to improve your expertise at the negotiating table. You will carry out a methodical introspection into your negotiation style, assess your strengths and identify potential areas for improvement. You will address the main tenets of the negotiation process and analyze the different types of negotiation, including effective strategies to resolve negotiation deadlocks. Remember that a small improvement in your negotiation style can lead to huge benefits for you and your company.

Optimizing Your Retail Business

Barcelona, July 15-17

The retail sector has become increasingly sophisticated and complex in recent years. Senior managers have to face reality and address the challenges presented by the expansion of hard discounters and the growth of private labels within a changing context of increasing product proliferation and decreasing product life cycles. Today, successful retail businesses share two common features: excellence in operations and customer service from the manufacturer to the point-of-service. In this program, you will discover how to boost profitability and margins through agile operations and customer-centric retail models, as well as respond to the threat of private labels and use the key dimensions of product innovation and e-commerce to compete successfully.

Making It Work: A Power Approach to Strategy Execution

New York City, October 6-8

When a business strategy fails, shortcomings are often exposed - not necessarily in the strategy itself, but in its execution. The ability to *make it work* is critical for business leaders and it is the overriding factor in determining a company's long-term success.

The program features the expertise of IESE Professors Fabrizio Ferraro (Academic Director) and Marco Tortoriello, as well as the vast experience of Stanford University Professor Jeffrey Pfeffer, a world-renowned expert on management, leadership and human resources.

The *International Economic Overview* is also available online, in Spanish as well as English. Access the publication at www.iese.edu/alumni/coyunturaeconomica

International Economic Overview

ISSN: 1133-4002. D.L.: B. 31.862-1993. Publisher: Publishing Division, IESE. Av. Pearson, 21, 08034 Barcelona, Spain. Tel.: +34 93 253 42 00 Fax: +34 93 253 43 43 e-mail: comentarios@iese.edu. www.iese.edu