



Budget 2011: back to the economic future.

Antonio Molina, advisor to the U.S. Congress in Biotechnology, thinks that Spain has to continue investing in R&D to transform his productive model.

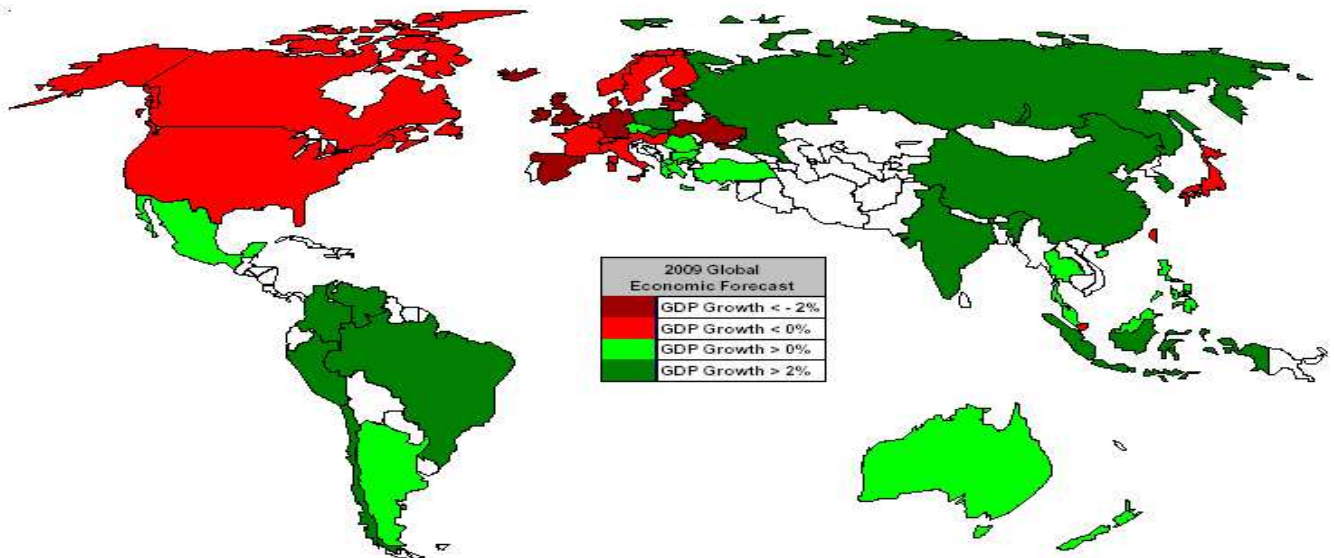
The production model of the Spanish economy has always been based on relatively uncompetitive sectors and with very little added value. We must exchange it now for a sustainable economic model based on knowledge and not speculation or services. This is necessary to prop up the scientific and technical public production, strengthen the transfer of technology to the private sector, and facilitate the movement of professional investors' capital from the old business sectors to the modern and sustainable ones. Therefore some budgets for 2011 that do not cut the good steps already taken, an in-depth educational reform, a labor reform, and a very profound model change, are required. The government has made progress in the right direction, particularly the Ministry of Science and Innovation, but we are facing the most difficult moments of the legislature, and now is when we keep a long-term vision and persevere. We have all the parts and all the tools: let's build the future.





Since 1985 Spain has demonstrated impressive economic growth. In 2006 our per capita income dollars was 350% the 1986 value, while Germany was 175% and France 165%. Despite external and domestic crisis, this growth differential has been maintained until the current situation, exceeding our neighboring countries. It has been during this international crisis when the structural weaknesses of our economy have been painstakingly exposed. First, because our recovery will be the slowest in Western Europe, second because our economy's credibility is inferior to that of the major countries in the Eurozone and therefore the risk premium to finance in the international debt markets increases, and finally not only because the level of unemployment is extremely high, but because between 20 and 30% of these unemployed workers do not possess sufficient qualifications to be recycled back into the labor market for a short term basis.

2009 World GDP Forecast Map



| GDP Growth > 2% | | GDP Growth > 0% | | GDP Growth < 0% | | GDP Growth < - 2% | |
|-----------------|-------|-----------------|-------|-----------------|--------|-------------------|--------|
| China | 7.70% | Thailand | 1.90% | Belgium | -1.90% | Iceland | -9.30% |
| Indonesia | 5.30 | Bulgaria | 1.80 | Taiwan | -1.90 | Latvia | -6.90 |
| Peru | 5.30 | Romania | 1.80 | France | -1.80 | Ireland | -5.00 |
| India | 5.20 | Australia | 1.70 | Hungary | -1.60 | Estonia | -4.70 |
| Brazil | 2.90 | Czech. Rep. | 1.70 | USA | -1.45 | Lithuania | -4.00 |
| Russia | 2.90 | Malaysia | 1.50 | Japan | -1.40 | Ukraine | -2.90 |
| Chile | 2.85 | Cyprus | 1.10 | Sweden | -1.40 | U.K. | -2.80 |
| Slovakia | 2.70 | Hong Kong | 1.00 | Austria | -1.20 | Germany | -2.30 |
| Colombia | 2.50 | New Zealand | 1.00 | Finland | -1.20 | Italy | -2.00 |
| South Korea | 2.45 | Mexico | 0.80 | Denmark | -1.00 | Netherlands | -2.00 |
| Poland | 2.00 | Turkey | 0.80 | Singapore | -0.70 | Spain | -2.00 |
| Venezuela | 2.00 | Argentina | 0.50 | Switzerland | -0.70 | | |
| | | Philippines | 0.50 | Canada | -0.50 | | |
| | | Greece | 0.20 | Norway | -0.50 | | |





ANALYSIS AND OPINION ARTICLE

August, the 18th of 2010

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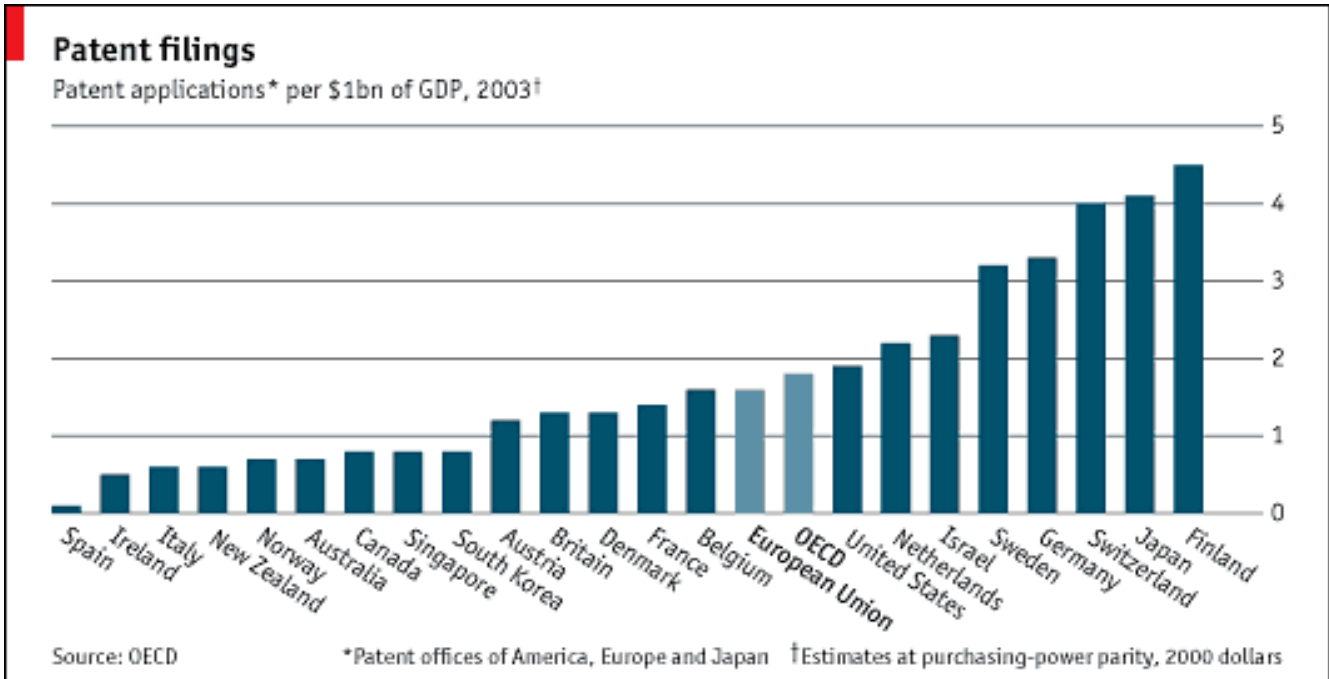


True, some of the doubts about our economy come from international speculative movements interested in obtaining short-term profit. It is also true that the origin of the current crisis is not in our country but initially in the package of U.S. subprime lending. But the sign of alarm has been utterly appeared to see how much U.S. and major Eurozone economies are starting to emerge from the crisis while Spain has at least another year of suffering, maybe two. Why? The underlying problem is that our unemployment rate is at least double that of the countries around us and also our deficit is one of the highest values in Europe. These last two factors are very troubling precisely because the Spanish GDP, which is the barometer of growth, relies heavily on low-tech sectors such as construction and services. Why low-tech sectors and what's wrong?

In the last U.S. biotechnology industry macro-congress held in Chicago in May this year, a JP Morgan analyst summed it up this way: "For every position work created in sectors with high added value such as biotechnology, software, internet, etc. 10 jobs also of added high value are created and from each of these 25 average value jobs are formed. In the property sector this ratio is 0.5 to 50; in summary, 250 to 25, ten times more employment. Yes, but if the real estate business can generate millions of jobs and huge flows of capital, why are we saying it is better to make microchips and pharmaceuticals than make bricks? Because growth of sales in microchips and drugs is based on factors intrinsic to these products; i.e. in making them better, faster, more efficient, cheaper, more diversified, more adaptable, and so on. In other words, these sectors evolve thanks to what makes the product evolve and therefore create new market niches, new applications, new products, and a microchip can transform into an iPod, a medical scanner, or a cell phone. Intensive industries such as construction diversify too little and hardly create new market niches. In addition, workers of knowledge-based industries tend to be well trained in comparison with construction and the like, easily change their job and enterprise, and in times of crisis are better off, especially in tight labor markets.

In other words, the growth based on economic models of knowledge and technology grows and diversifies as long as there is opportunity, while growth models based on low added value grows due to speculative bubbles or lowering operating costs, especially those of labor. Spain's traditional problem is this precisely, there has never been a period of 50-60 years of growth and knowledge-based development, which has traditionally left us in the hands of large companies (domestic or foreign, whichever) that, accessing grants and soft loans, installed huge production areas employing thousands of workers, but in a few years, "offshoring" to Poland and Hungary first, and China later. If you think about it, this means that for a time the Spanish worker was what the Chinese is now: cheap labor on which to base global financial benefits. Do we really want that for our country? No, of course not.





What to do? On and off since 1985, development policies have been applied from public and private R & D in our country. The initial idea was to increase the scientific and technological mass of production to then nourish the modern and highly knowledgeable industry with it. That is to say, follow the German model of development after the Second World War, or that of states in the U.S. like California or Texas. These policies generally have good results. For example, Spain publishes about 15% of European scientific articles about biomedicine. However, patents in this camp 1% are Spanish; in other words, from the point of view of competition, 96% of the investment made with our taxes is a waste. Actually, this is news is not so bad, let's emphasize the positive part, which is we have enormous potential. In short, to compete with Germany, France, or the UK should have between 60 and 80% more engineers and technologists mainly in the private sector, and increase our production in this percentage. But above all, it is absolutely urgent to promote the transfer of technology from the public to the private sector, just as it occurs in Germany, Canada, or California. This, coupled with rational, forward-looking, education and labor reforms, should get us on the real path of sustainable growth.

Of the various pending issues that we have to base our growth on a sustainable production model based on knowledge, is one that is rarely thought of and spoken about even less, but is key in our development: **redirect private professional investment to sustain this model**. Because it is simply impossible to make and maintain these changes based on increasing public debt and fiscal deficit, it is of extreme urgency that the government boosts the movement of professional capital from the current unsustainable sectors to very sustainable ones.





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A very clear example has been renewable energy, because based on generally well designed tax incentives, private capital masses laden in brick has been attracted which has led to a rapidly growing sector and currently we are a first order power in this sector. Now these incentives are being cut, as should happen but they have already done their job. The capital risk in general, ranging from seed capital to private equity, should find these new niches of investment attractive and support them. Its sole motive should be the benefit of their investment, i.e. generating companies and real business models, which yield goods and are sustained. But to take the big step, the government should ease their way into these new areas while reducing the comfort of investing in existing uncompetitive sectors.

Is it happening? Surprisingly yes, at least in part. Probably the current Ministry of Science and Innovation is the most prepared and aware of all the current Spanish democracy. The Minister, beautifully formed, with a doctorate, an MBA from one of the most prestigious business schools in the world, and exceptional business experience, is undoubtedly taking steps in the right direction. But she probably needs to be more ambitious in promoting the movement of professional investment from traditional sectors to the new economy. In order to realize this it is essential to take measures at various levels, following the experiences of countries like USA, Germany, Canada or Japan. The outline should be based on tax incentives investment (not just income tax rebates) in 5-10 key sectors, such as IT, biotechnology, engineering, renewable energy, and aerospace. Tax incentives for the creation of these companies, such as full deduction of these investments of investors on personal income tax, or on the consolidated profits investment funds (and not just on targeted investment returns); it is urgent to unblock the funds where CDTI has co-invested, and once the public money is received they do not know what to do with it; it is very urgent to streamline and professionalize the bids of the Technology Parks, where for example one of them charges 38€ per square meter of space, like a square meter in some high-rise office in Madrid or Barcelona, when similar parks in Japan, California and Canada charge between 7 and 10 €; it is essential to create a wide transfer path for the personal investigator between the public and private sectors, roundtrip, because today the public investigator that goes to the private sector really cannot return even if she/he desires, and vice versa; a very low VAT for firms that are from 0 to 5 years, with total social security bonuses and personal costs, and with very soft loans via the ICO (Official Credit Institute) to finance through patents and other operational costs prohibited today would be imperiously useful. All these investments would amount to no more than € 300 million and in 5-7 years would multiply the mass Spanish industry of the new sectors by 10. Similarly, to facilitate the leap from these new businesses to medium sized ones in those 5-7 years, we need new investment funds specializing in mature capital rounds, which are nearly nonexistent in Spain today for the new sectors.

Nothing that has been done so far will work if in future budgets the only objective is to reduce the deficit quickly. Despite this being a mandatory objective, it never should be at the expense of destroying the potential we have. Now more than ever, we should bet on ourselves, our abilities, and our potential, to once and for all jump the economic engine and leave the "PIGS" group. We have the talent and capacity, we have taken steps in the right direction, please do not fall apart on the way as we have done many times in history.





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Let's stop being a country composed of only bricklayers and waiters, and add on engineers, doctors and technologists; let's go out to conquer markets, patents, generate a space transport system, electric cars, drugs that cure cancer, solar plants, etc. Let's take the leap now. Never before has it been done. The current Ministry is heading in the right direction. Will it deviate? For the wellbeing of all, let's hope not.

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