THE COFFEES OF THE SECRETARY-GENERAL

Bringing New Perspectives to the OECD
Programme, 28 May 2014

COFFEE BETWEEN THE SECRETARY-GENERAL AND MARIANA MAZZUCATO

Other participants: Luiz de Mello, Deputy Chief of Staff; Mario Pezzini, Director of the Development Centre; Andrew Wyckoff, Director of the Science, Technology and Industry Directorate; Sergio Arzeni, Director of the Centre for Entrepreneurship, SMEs and Local Development; Mario López-Roldán, Head of the Secretary-General’s Speech Writing and Intelligence Outreach Unit.
15.00 – 16.30

PRESENTATION TO OECD STAFF

Presentation by Mariana Mazzucato to OECD Staff on “The Entrepreneurial State: Debunking Public vs Private Sector Myths”.
16.30 – 18.00
Short Bio

MARIANA MAZZUCATO

Mariana Mazzucato received her BA from Tufts University in History and International Relations, and a PhD in Economics at the Graduate Faculty of the New School for Social Research in New York. She is a Professor in Economics at the University of Sussex, where she holds the RM Phillips Chair in Science and Technology Policy (in SPRU). Prior to joining Sussex University, she was at the Open University as Professor in the Economics of Innovation, and previous to that at the London Business School and the University of Denver.

She is the Coordinator of a large EC FP7 research project on Finance Innovation and Growth and is the Economics Director of the ESRC Innogen Centre. Her current research work is also funded by the Ford Foundation and by the Institute for New Economic Thinking (INET).

She is an active policy advisor in the areas of innovation and industrial policy, both in the UK and abroad, and is a member of the two EC expert groups in the European Commission, on Innovation for Growth (i4g) and on Public Sector Innovation. Her research focuses on the theoretical and empirical relationship between innovation, growth, and finance.

Her influential work on ‘The Entrepreneurial State’ argues that in innovation the State has not just fixed market failures but actively created the vision, and invested in the most risky and uncertain areas. She is active in the media where she has argued that what Europe needs today is not austerity but strategic investments, which will create a dynamic ‘Innovation Union’.

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PRESENTATION

“The Entrepreneurial State: Debunking Public vs Private Sector Myths”.

Full transcript

I would like to talk to you about one of the biggest crises we face today, a crisis of language when we talk about the public sector. In order to achieve the big ambitions, such as the need for smart and sustainable growth and to rebalance the economies away from speculative and short-term growth and towards the long-run, we need very big thinking by both the public and private sector. Whereas we have talked in detail about what private organisations should do, we have completely dismissed the role of the public sector. We have not really thought of the public sector’s role as an engine of growth. Nor have we thought about how to organise public sector institutions and how to go beyond the usual discussion of how the public sector is not only de-risking the private sector, but actually taking on the big vision risk and missions and should therefore participate in the rewards which are a result of this investment.

Keynes captured this message by stating: “Practical men, who believe themselves to be quite exempt from any intellectual influence, are usually the slaves of some defunct economist. …I am sure that the power of vested interests is vastly exaggerated compared with the gradual encroachment of ideas.” (The General Theory of Employment Interest and Money, 1936). He was of course referring to the fact that behind every practical man or woman there was a defunct economist. He talks about the encroachment of ideas in policymakers’ minds and in terms of narrow economic thinking driving policy. What I want to focus on is the very narrow, encroached and captured way in which we talk about the role of the state in the economy. I will be focusing on the role of the state in what we – and you here in the OECD – call ‘smart growth’, innovation-led growth.

1 The original transcript of Mariana Mazzucato’s presentation has undergone minor editing to ensure that the text published in this brochure is presented in a reader-friendly format.
The narrow way of talking about it is the state, at best, fixing certain types of market failures, I am sure a lot of you are already well informed of that approach. The most typical market failure in innovation is the whole public good problem of basic research. Basic research has very high spill overs, it is very hard to appropriate its returns and has very little private investment. So the overall consensus is that the public sector and different kinds of public investments should be funding innovation, as it mainly concerns the public good. This is what we are taught when we study industrial organisation and the role of the public sector in innovation. Of course we are also told that it is very important for government to be fixing different types of system failures.

I am honoured to have the R.M Phillips Chair at SPRU – which Christopher Freeman held. He was very important in founding the systems of innovation literature which has very much informed different types of national and transnational policies which focus on horizontal measures. These underline that it is not enough to solely get great knowledge in science, but also to invest in these horizontal institutions, such as science-industry links, to actually allow this new information in science to get disseminated and diffused throughout the economy. Chris Freeman’s work runs very deep. Unfortunately however, the way it has been interpreted is only through the role of government in terms of facilitating innovation and creating the conditions for innovation in the private sector through these different horizontal measures which include: funding education, infrastructure, science-industry links and appropriate financial tools for industry.

What I want to focus on is what is missing from these narratives, but before I do, let me read a quote by the Economist: “Governments have always been lousy at picking winners, and they are likely to become more so, as legions of entrepreneurs and tinkerers swap designs online, turn them into products at home and market them globally from a garage. As the revolution rages, governments should stick to the basics: better schools for a skilled workforce, clear rules and a level playing field for enterprises of all kinds… Leave the rest to the revolutionaries.” (The Third Industrial Revolution, The Economist, April 21, 2012).

The Economist takes the market failure view which is: government is needed but just to do the basic functions, such as the roads, infrastructure, education, research etc. It should then get out of the way and let the revolutionaries do their work. So the constant image of the revolution, the dynamism, the creativity and the real innovation is housed in the private sector, and at best governments intervene to fix these market failures, the basic underlying conditions for innovation.

“We are being fed a false image: the cool Silicon Valley guy versus the boring government employee.”
This is a false image! Let me use the example of the Mexicans. I read a book in my sophomore year called “America Ocupada” by Rodolfo Acuña who stated that the false and fabricated image of the lazy Mexican, with a sombrero under a palm tree, was fabricated almost overnight during the Mexican-American War when the United States proceeded to steal half of Mexico – Arizona, Texas, New Mexico and California. This image was created in order to justify that theft. The point is we are constantly being fed different types of caricatures such as the image of the cool Silicon Valley guy in his t-shirt, sandals and pony tail, versus the boring government employee, needed for the basics tasks. So I want to focus on why this image is wrong but also why it has actually been feeding all sorts of interests which want to propagate this image; and I want to end by connecting it to Piketty’s ‘Capital in the Twenty first Century’ and specifically how this image has been feeding inequality.

In terms of policies, this cartoon image has fed into very concrete ways in which we think about innovation. Basically we see this roaring lion in a cage, business, with different types of impediments which prevent it from innovating. Government’s role is to take away these impediments through R&D tax credits, getting rid of red tape and through different ways of incentivising innovation.

If we look at many of the current innovation policies, they are actually driven by this image, which I argue in my book is the wrong one because what we often have in the private sector is the non-willingness to roar. Keynes outlined this idea to Roosevelt in 1936, he stated that we actually do not have these lions and wolves and tigers in the business community, we have a bunch of domesticated animals – gerbils, hamsters and pussycats. The role of policy therefore is to make them grow up and want to be lions. That is a deep insight which Keynesians have not followed up.
“Entrepreneurial is the willingness to take on risk and the ability to think about uncertainty.”

The point of my book is to focus on the ‘Entrepreneurial’ part. It is interesting how this title is being translated in different countries. In Italy it is ‘Lo Stato Innovatore’, the word entrepreneurship to me in English means: the willingness to take on risk and the ability to think about uncertainty, it is not just about setting up a company. The significance behind entrepreneurialism does not get translated well in direct Italian ‘imprenditore’ as it tends to remind people of tax evasion. In Germany, on the other hand, the translation is ‘Das Kapital des Staates’ as I was told the word Entrepreneurial would not fly with left wing thinking. What I mean by the word ‘entrepreneurial’ is the state’s willingness and the ability to take on risk and in doing so, it does much more than fix market failures (even though that is important) but in the Polanyi sense, it actively creates and shapes markets.

Specifically, in looking at all the important technological changes of general purpose technologies, which have nurtured growth for decades, behind these we witness different types of public investments which were shaping and creating markets. In terms of innovation, when thinking about the role of governments in actively shaping markets, the most crucial are mission oriented investments such as Obama’s post-crisis stimulus programme around green growth.

These investments, and the ones behind the IT revolution, have been provided by the public sector across the entire innovation chain, not just the public good. Very hefty funding has been provided for applied research and early stage financing of companies. These investments were important as they allowed these sectors to work together in interesting ways and highlighted the importance of the public-private partnerships. The reason however I am not focusing on the private sector is because we already know that it has been important and we are being told that every day.

Early stage financing of companies, the Small Business Innovation Research programme (SBIR), has been increasing over time (Table 1). In this particular case, it is comparing private venture capital to public venture capital, if we can call it that. It is not that surprising that it has increased as the Venture Capital model itself has become increasingly short-termist. This is because whereas the general purpose technologies which it supported required about 15 to 20 years, Venture Capital is now increasingly thinking about returns to its investments in 3 years.
When they tried to bring Silicon Valley to the UK for example, or the Silicon Roundabout as it was coined, some of the tax policies which were introduced at the time to facilitate this project were quite dysfunctional. The Blair government reduced the time that private equity had to be invested, in order to be legible for capital gains tax reductions, from 10 years to 2 years. These tax policies were run on the supposition that life has to be made easier for the venture capitalists as they were perceived as the true sources of innovation when actually what venture capital did in the US is surf a massive wave of state funded technologies. So in the case of nanotechnology, it was not the fact that business requested help from government, in fact they had no clue, the word itself originated from scientists in the national science foundation, which later became known as the national nanotech initiative.

Let me provide a brief example of the technology behind the iPhone, which until recently represented the emblem of Silicon Valley. Steve Jobs was a genius, what he did was to put together existing technology in a very cool way, with a sense of how important simplicity and good design are. All the innovative and smart features on the iPhone, internet, GPS, touch screen display, the Siri feature, were funded by government. Apple itself received a 500,000 dollar Small Business Investment Company (SBIC) programme in its early days.

This iPhone table (Table 2) shows that technology which went into the phone originated from numerous government agencies such as the CIA, DARPA and the Department of Defense. What is interesting is that this model was used as inspiration for additional projects like ARPA-E, which is today doing for clean technology what DARPA did for the internet. The Department of Health, the second biggest spender in innovation, after the Department of Defense, has been incredibly important across the entire innovation chain and very mission orientated. Their funding has been increasing over time and only today under the Tea Party paralysis has this kind of funding been put under serious threat, to the amount of almost 25% in potential cuts.

In Europe, we are being told that the countries which are now suffering the most, the PIIGS, had been spending too much. But all you need to look at is the GERD data which shows they were not spending too much at all, in fact they were spending too little in R&D. (Table 3)

“The real challenge today is how to build innovation ecosystems which are symbiotic and mutualistic versus parasitic and this is a problem that policymakers need to confront.”
More interestingly in the US, the majority of financing for Business R&D from the public sector is in fact, direct financing. Regarding R&D tax credits, the evidence, whether they actually make R&D happen, which would not have occurred under different circumstances, is quite weak. This is because what drives significant R&D is not tax credits but direct public sector funds willing and able to take on that risk. Of course, it is important to get the balance right, constructing the R&D tax credits in intelligent ways, such as focusing on the research that leads to the R&D and not the income generated from it. The Netherlands have introduced these kinds of tax credits recently and are able to generate additionality.

Many countries are now increasingly looking at green growth and if we look at the public-private ecosystems, one of the big concerns is that we do not yet see the commitment and investments by the major actors, such as the big oil companies. One of the questions arising from this is whether today, with the green revolution, we are witnessing a moment whereby because private finance has retreated, the role of the public sector has had to increase, not only in a mission oriented way but also to make up for the lack of private finance by the large incumbents.

If we look at Bloomberg’s new finance energy database, which breaks down total worldwide investment in renewable energy, the data for 2012 showed that the entire worldwide private sector investments in clean-tech was 12.5bn dollars. Whereas investment just for public banks – the China Development Bank, the Brazil Development Bank, KFW and the European Investment Bank – amounted to 80bn dollars. In addition, the role of these banks, such as the KFW, is changing. Whereas in the past they were focused more on counter cyclical financing, now they are picking green financing as a direction to move towards and thereby influence the market, which has traditionally been the role of the private sector.
This is similar to the iPhone technology I spoke about earlier, all those technologies and specific companies were picked. SBIR selects companies it believes will be important for particular technological landscapes such as biotech, nanotech and the internet in the past. So these banks are actually crowding out private finance – which can also of course become an issue of concern. What is interesting is that we do not yet have language in economics to talk about this kind of mission oriented funding in a macro sense. These banks are increasingly choosing particular directions, not just infrastructure capital development and not just counter-cyclical, but choosing green and life sciences.

The best defence to this crowding out of course is ‘crowding in’. At a time of underutilised capacity people like Joseph Stiglitz and Paul Krugman are saying, ‘of course you should be investing in these areas’. Interest rates are low, public investments will lead to greater GDP and thereby increase the amount of savings available to both the private and public sectors. However, all the investments behind the iPhone actually happened in a boom. While these particular investments that we are seeing now are just as needed today as if we were in a boom. These are areas with very high capital intensity and technological market risk and the evidence shows that there has been too little private finance, as with previous technological revolutions.

The fact that we do not have terminology to talk about this new space that public investment is actually creating, and at best we can defend it as crowding in, is a real problem. The point being, whatever framework we have such as market failure versus mission oriented investment will translate into particular indicators through which we evaluate the performance of those investments. It is therefore interesting when we see the accusations being made against the China Development Bank, such as it is too active and anti-competitive regarding the huge loans it is providing to clean-tech firms and to the number 1 player in telecoms today, Huawai. The real question to competition authorities is: if competition is driven by innovation, if innovation takes 15-20 years
not 3 years), if private finance is increasingly becoming short-termist and actually retreating from the real economy, then where is this money going to come from? Of course it will come from the public sector.

This is important because we are currently experiencing problems of financialisation. Industrial and innovation policies are finally back on the agenda of many countries, after being a blasphemy for decades, precisely because of this problem. Table 4 shows how much financial intermediation has outpaced the real economy.

This has motivated many economies to rebalance away from finance towards industry. While industry on the other hand is becoming much more financialised in many sectors, particularly oil and pharmaceuticals who are spending more money on share buybacks than on R&D (Table 5).

Bill Gates is one of the few business representatives who have very vocally admitted that the state has often taken the lead. He has said: “A key element to get an energy breakthrough is more basic research. And that requires the government to take the lead. Only when that research is pointing towards a product then we can expect the private sector to kick in.” This is very different from the narrative that we often hear that the state is an impediment, it is a regulator, a meddler.

However, the American Energy Innovation Council (AEIC), made up of 7 CEOs (including Bill gates) which recently asked the government for three times more spending on clean technology (to $16 billion annually) as well as additional ARPA-E funding of 1 billion dollars, have together spent $237 billion on stock repurchases between 2001-2010. Apple never did share buybacks under Steve Jobs, this is Tim Cook’s business plan. This is quite worrying in terms of what it signifies. CISCO for example, used to be very innovative until 10 years ago when it started focusing on buybacks instead of R&D.

“The state has not just de-risked the private sector, it has actually taken on risk. It should get a return from its successful investments in order to cover its losses and fund the next round.”

The real challenge therefore today is how to build innovation ecosystems which are symbiotic and mutualistic versus parasitic. This is a problem that policymakers need to confront. We cannot simply state that the market is inducing short-termism because markets are outcomes of interactions...
between different types of organizations (household, business, public sector organisations). If we look at any given sector, such as telecoms, what we see is very different behaviour between companies. The Chinese company Huawei for instance and the Swedish company Ericsson have no buybacks, whilst CISCO has a huge amount of buybacks. So one of the main questions in terms of innovation policy is how we can line it up more with issues around corporate governance and financial market reform? We need to ask industry, such as pharmaceuticals, to reform and to co-invest in the difficult areas, alongside the state. If they do not, then they should reduce prices as one of the justifications of the high pharmaceutical prices has been the great risk taking that the ‘R’ in R&D represents.

If we look at the important role of the state in the few places which have achieved innovation type smart growth, such as Silicon Valley, for every success such as Tesla, there have been twenty Solyndra-type failures. Both companies received close to $500 million guaranteed loans by the Obama Administration. Solyndra failed and is now being used as a way to attack government, whilst Tesla has been very successful.

What should occur is that some of the profits generated by Tesla should go back to government in order to cover the Solyndra type failures as well as fund the next round of investments. In fact, in the guaranteed loan that Tesla received there was an agreement specifying that the state has the right to buy 3 million Tesla shares at the original share price of 9 dollars per share. By the time the loan was paid back, the share price had climbed to 96 dollars per share. The state did nothing. Why? I believe the reason for this was that it did not want to look too engaged and too close to business, when actually the whole point is that it is close to business.

So how does this relate to the inequality dimension? Innovation takes a long time and is cumulative but as the returns arise, if we do not have the right narrative for the collective group of actors that have actually generated this success; then what happens is, some actors come in
The Coffees of the Secretary-General: Mariana Mazzucato

quite late and are able to capture the entire advantages rather than what corresponds to their contribution.

Piketty for example talks about the return on capital outpacing the return on growth and what is interesting is he picks out specifically the capital gains tax as one of the ways in which this return on capital has outpaced growth. What is fascinating is how the changes in capital gains in many OECD countries, certainly in the US, have always co-evolved with the innovation narrative. It was actually the National Venture Capital Association that in 1976, only four years after it was formed, lobbied government in the US to get capital gains to fall by 50% from 40% to 20%. Warren Buffet stated: “I have worked with investors for 60 years and I have yet to see anyone — not even when capital gains rates were 39.9 percent in 1976-77 — shy away from a sensible investment because of the tax rate on the potential gain. People invest to make money, and potential taxes have never scared them off. And to those who argue that higher rates hurt job creation, I would note that a net of nearly 40 million jobs were added between 1980 and 2000. You know what’s happened since then: lower tax rates and far lower job creation.” Pfizer recently closed one of its largest R&D labs in the UK and moved to Boston not because of tax but because of the $32 billion per year that the US economy has been pumping out in that particular sector.

In today’s world of big data it should not be too hard to think of schemes that don’t think about the return ex-ante, as that would prevent a lot of mission oriented goals from happening, but if and when returns arise, then some sort of payback should occur, either through equity or income contingent loans. Many people say that this already happens as government gets a return through tax; well first of all, as we know, companies like Google, whose algorithm was funded by the National Science Foundation, does not pay much tax; Apple does not pay much tax either. But even if they did, what has happened to tax is that the upper marginal rates have come down significantly, therefore the return is not coming back through tax. So we could either go back to the old tax rates, something which is obviously not going to happen, or according to Thomas Piketty’s prescription, we could setup a massive global wealth tax, which I also personally do not think is going to happen either. On the other hand, we can admit that the state has not just de-risked the private sector but has actually taken on risk and should get a return from its successful investments in order to cover its losses and fund the next round.

We therefore need to get rid of this very backwards ‘boring government type’ caricature as it will affect who will come to work for government. ARPA-E, funded by the Department of Energy, was run recently by the Nobel Prize winning Physicist Steve Chu. In Europe the irony is that the more we bash government, the more we try to be like Silicon Valley and in so doing we try to get rid of the state. It is much sexier to go work for Google or for Goldman Sachs. It may sound frivolous, but it is very important to actually form state organisations which are interesting and mission-oriented than ones perceived as merely fixing market failures.

Thank you.
QUESTION AND ANSWER SESSION:

Question 1:
What should the OECD be doing and saying that it is not doing and saying right now? If we were to establish the goal of social cohesion equity, what would you come up with as a game plan to encourage innovation in order to achieve greater social cohesion and great equity as a societal goal?

Mariana Mazzucato:
My feeling is that the OECD is not courageous with its data. I do not hear a strong message coming out which differentiates it from the World Bank or the IMF. In fact, recently it has gone the other way, there was an article in the FT in which the World Bank looks much more progressive compared to the OECD in terms of its recommendations within the Eurozone. The OECD’s message regarding the PIIGS for example focuses on structural reforms and cutting red tape. But the really stark messages coming out of OECD data are: the PIIGS did not spend too much; they spent in the wrong areas. Since the OECD has such great innovation data, it must think of a different narrative to describe the PIIGS and help them form these organisations.

In terms of the challenges of the missions, there are two issues here. One is that you cannot have broad challenges, such as equality, that is a vision. What is fascinating about the few countries in the world today that are on the right trajectory – China, Brazil and Germany – they possess very high vision at the top which is then being transmitted to the different departments as concrete missions.

In terms of green, this is not a revolution, the technologies behind green have existed for a long time. Green could become a redirection of the entire economy in order to allow previous revolutions, to not only be fully deployed but to be deployed in the direction we want them to. So green is a direction through which the IT revolution, which is only half way there if you compare it to electricity, could actually get fully deployed in the economy. But we need to actively make that choice. Just like suburbanisation was a government choice in order to fully deploy the mass production revolution – people did not just wake up one day and say ‘I want to go to the suburbs’. So thinking of green as a redirection of the whole economy is a vision and within that vision we can have numerous missions.

The other point is shale gas which was government funded, is that good or not? The point about having a democratic debate in these cases is important regarding what direction should be chosen. The irony is that by not admitting that government is an engine, not just a facilitator, we are not being careful enough in the directions that are being taken. There was no debate on shale gas. People talk about the debate in terms of the debt, they state ‘debt is bad because our grandchildren are going to have to pay the interest’, which I personally believe is a flawed point. We do not have this debate with technology because we have not admitted that it was funded by the tax payer. There is some very interesting work by people like Andrew Stirling at SPRU...
looking at the whole issue of directionality which should not be about whether government should or should not pick winners, government has always picked winners. It should be about how to actually nurture real democratic debate about what kind of direction should be taken because it will make a huge difference.

Question 2:
Mission oriented implies something very national oriented. But in a context which is increasingly global, how is it feasible for a country to invest in R&D and to receive its benefits?

Mariana Mazzucato:
On the national versus global issue, let me focus on climate change. Climate change is a global challenge, it is a global war and a mission should therefore exist to tackle it. In the case of energy for example, the reason why this sector has been able to constantly secure funding is because of the security dimension. In the same way, climate change issues should begin receiving mission oriented funding.

Given that this is tax payer funded, the second issue arising is how to justify to the tax payers that they should invest when someone like Tesla Motors can then build things abroad, just like Apple does, and these companies profit from global tax regimes to not pay their share. One way to tackle this is getting rid of the tax loopholes and to create international tax agreements.

There is also the absence of the marketing department within government. Just think of Obamacare, 60 million people were uninsured and dying in many cases, not because they were sick but because they could not buy medicine. Obama was one of the first Presidents able to achieve this incredible feat and was instead accused on meddling in people's healthcare choices. His response should have been 'we created healthcare in the USA, we did not meddle in it. 75% of the drugs you buy in your pharmacies were funded by the government.'

Question 3:
Can you elaborate on the emerging markets? What can emerging markets do to improve their situation within the context you have outlined? These countries often do not have the resources or the skills available to achieve results. They also have different priorities such as poverty alleviation.

Mariana Mazzucato:
First of all, I do not like the words emerging countries or BRICS – there are enormous differences between these countries to group them in such a way. What I find inspiring in Brazil, for example, is that it is doing what Mexico is not doing. The problem is not finance, but the kind of finance needed; and that is: long-term, patient, committed and strategic finance. On the one hand the Brazilian Development Bank is very mission-oriented and at the same time it is still funding the
traditional projects such as infrastructure while the treasury reinvests 80% of the profits back into the economy. The Italian State Investment Bank on the other hand, at best focuses on export financing and facilitation but it is not a strategic, mission oriented investment bank.

In terms of the emerging countries, there is of course a big difference with the low income countries, such as the African countries. In the middle-income groups however, such as Brazil and Mexico, the real differences are not because of what income levels they have achieved and the amount of catching up, but the decisions being made within their public sector institutions and the degree in which they can negotiate with the private sector actors. In this respect, I do not see any difference with countries like the US, which is extremely poor in terms of inequality, or countries in Europe where we also see extreme income inequalities both within and between countries.

Question 4:
Can you develop on your new vision of the state? Does it exist to mitigate risk, can you be more specific about its role?

Mariana Mazzucato:
The government does not only mitigate risk, it’s not about de-risking. The government took risk from upstream to downstream with a mission oriented mentality making nanotech and biotech happen. I believe the word ‘mitigate’ does not capture the government’s role in this case, that is why I use the word ‘entrepreneurial’. If you look at the few countries and the few regions within countries which have achieved smart innovation-led growth, this has required a state which has been able to take on extreme uncertainty and risk along the entire innovation chain. It has also been necessary to think big and attract big thinkers. This is impossible to achieve if you think about it in terms of market failures, mitigating risk and de-risking, as it would be very hard to attract that level of expertise and to catalyse the kind of investments that were needed and were made in these previous revolutions. Hence you need to share the rewards; otherwise it will not happen again.
Question 5:
If the state is entrepreneurial, rather than reactive to innovation, what should we expect about the evolution of the concept of the nation state, particularly in a world where challenges are shifting?

Mariana Mazzucato:
To me the word state is the public sector. Within a country when I say state, I am not talking about the Ministry of Innovation and Research; I am talking about the diffuse decentralised network of active public sector organisations. In many countries we do not have entrepreneurial state organisations because we have not thought about it in this way.

Let me touch upon the problem of outsourcing by government to the private sector, such as IT projects. The BBC has a very important platform, through which it transmits its radio and television through the internet, called the iPlayer. The team which built the iPlayer is one of the forces reinvigorating the BBC and allowing it to remain extremely innovative.

An interesting example on outsourcing in the UK is when government wanted to modernise its website. The first step they took was to outsource it to SERCO, which produced a terrible and static website and charged the government 25 million. The BBC iPlayer team was then hired to redesign it and produced an award winning website for a fraction of the cost, and in the meantime, reinvigorated government.

This is my message: the public sector through all its different services can apply innovation across the board in order to reinvigorate areas of public services as well as the departments which are running them. It is impossible to do that with the current mentality of outsourcing.

Question 6:
Your framing of climate change as a ‘war’ is very interesting. In the new security paradigm, wars are unwinnable so why refer to it as a war?

Mariana Mazzucato:
Climate change is a war, we do not have to think of it in terms of violent war. In the past, agencies were able to protect their budgets if they framed their challenges and their work within the security domain. So the question then arises whether the only way to get that kind of funding to be applied in a broad way to climate change is if we should frame it in terms of security.

Question 6:
There is little theory in law on innovation; it is not even a legal concept. How can law contribute to the debate on innovation?
Mariana Mazzucato:
The Bayh-Dole act in 1980 allowed publicly funded research to be patented to allow this great science which was being generated to be commercialised. That fuelled the whole biotech industry. The problem is that although legally that act said, 'we should make sure the tax payer does not pay twice for the research and then for the high prices', government has never exercised its right in that act, written by lawyers, to have marching rights over the prices of drugs for example.

So the question of the legal dimension is who owns the patents, the marching rights, the right to even operate in a particular space? There is almost an underlying notion that there is a space in which government can enter and another space in which it cannot. If this is thought in a really open way, it comes down to ownership of who has the right to claim a particular space and what kind of language we can use to describe that space.

The ways in which lawyers have been involved has been determined by a narrow economic framework; if we begin to open up that framework, the question is what would be the new relationship that we will have with that legal system.

To provide an example, in patents today the real problem is not so much the number but what we are patenting, we are patenting the tools and the research. Lawyers however have been quite silent in terms of how we are closing down science and turning back to the middle ages of secrecy in a world of open innovation and big data. Lawyers should help us reverse this.

*All Photos: OECD/Michael Dean*
Mariana Mazzucato

“The Entrepreneurial State: Debunking Public vs. Private Sector Myths”

Organised in the context of The Coeeps of the Secretary-General

Conference center
Auditorium
16h30 – 18h00

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