HOUSES OF THE OIREACHTAS

Volume 1 Number 4

AN COMHCHOISTE FIOSRÚCHÁIN I DTAOBH NA GÉARCHÉIME BAINCÉIREACHTA

JOINT COMMITTEE OF INQUIRY INTO THE BANKING CRISIS

Dé Céadaoin, 21 Eanáir 2015

Wednesday, 21 January 2015

The Committee met at 9.30 a.m.

MEMBERS PRESENT:

Deputy Pearse Doherty,	Senator Sean D. Barrett,
Deputy Joe Higgins,	Senator Michael D'Arcy,
Deputy Michael McGrath,	Senator Marc MacSharry,
Deputy Eoghan Murphy,	Senator Susan O'Keeffe.
Deputy Kieran O'Donnell,	
Deputy John Paul Phelan,	

DEPUTY CIARÁN LYNCH IN THE CHAIR.

Context Phase

Mr. Klaus Regling

Chairman: The Joint Committee of Inquiry into the Banking Crisis is now in public session. I welcome everyone present to the fourth public hearing of the joint committee. There will be two distinct parts to today's proceedings. Later, we will hear from Professor Philip Lane of Trinity College, Dublin, on the banking crisis and economic and monetary union but first we will hear from Mr. Klaus Regling on A Preliminary Report on the Sources of Ireland's Banking Crisis.

Mr. Regling is the first managing director of the European Stability Mechanism. He is also chief executive officer, CEO, of the European Financial Stability Facility, a position he has held since the creation of the latter in June 2010. Mr. Regling has worked for 38 years as an economist in senior positions in the public and private sectors in Europe, Asia and the US, including a decade with the IMF in Washington and Jakarta and a further decade with the German Ministry of Finance, where he prepared economic and monetary union in Europe. From 2001 to 2008 he was director general for Economic and Financial Affairs of the European Commission. During the period 2008 to 2009, he spent a year at the Lee Kuan Yew School of Public Policy in Singapore where he researched financial and monetary integration in Asia. In February 2010, the then Minister for Finance, the late Deputy Brian Lenihan, requested Mr. Regling to conduct a preliminary investigation into the crisis in the banking system in Ireland. The report relating to that investigation was published on 31 May 2010. Said report was co-authored by Mr. Max Watson, who sadly passed away in December. Ar dheis Dé go raibh a anam. I remind members that while Mr. Regling is managing director of the European Stability Mechanism and CEO of the European Financial Stability Facility, he has come before us only to discuss his report.

I wish to advise the witness that by virtue of section 17(2)(*l*) of the Defamation Act 2009, he is protected by absolute privilege in respect of his evidence to this committee. However, if he is directed by the committee to cease giving evidence on a particular matter and continues to so do, he will be entitled thereafter only to qualified privilege in respect of his evidence. He is directed that only evidence connected with the subject matter of these proceedings is to be given and - as he has been informed previously - witnesses are asked to refrain from discussing named individuals in this phase of the inquiry. Members are reminded of the long-standing ruling of the Chair to the effect that they should not comment on, criticise or make charges against a person outside the Houses or an official either by name or in such a way as to make him or her identifiable.

I welcome Mr. Regling and invite him to make his opening remarks.

Mr. Klaus Regling: I thank the Chairman and members for inviting me to come before the committee.

Chairman: Does Mr. Regling have his mobile phone switched on? There is distortion in the sound emanating from the microphone.

Mr. Klaus Regling: I will switch it to flight mode.

Chairman: I thank Mr. Regling.

Mr. Klaus Regling: I am sure it will no longer be a source of disruption.

It is a pleasure to be back in this room after almost five years. On the previous occasion on which I was here, namely, May 2010, Max Watson and I presented our report. Unfortunately, as the Chairman mentioned, Mr. Watson passed away last month. Had he not died, Mr. Watson would be here with me and I would be very pleased about that. I thank the Chairman for confirming that the testimony I will give this morning relates to the report and is not linked to my current role as head of the EFSF and the ESM.

The report was prepared as a diagnostic, not a forensic, study and it did not look at the role of individuals. It was written from a "top-down" perspective to complement the report of Governor Patrick Honohan, who gave evidence to this committee last week. The report - A Preliminary Report on the Sources of Ireland's Banking Crisis - Max Watson and I compiled analysed the factors which led to the crisis, sought to draw policy lessons and identify follow-up areas for investigation looking at the period up to the end of September 2008. Reflecting the mandate given to us by the Minister for Finance at the time, the late Brian Lenihan, this deliberately excluded all policy decisions taken after the end of September 2008, including the granting of the bank guarantee at that time.

In our report, we found numerous factors - global, domestic, macroeconomic and structural - that contributed to the crisis. Taken together, these factors acted in a mutually reinforcing way and followed a decade of strong and extended economic expansion when Ireland's living standards first caught up with and then surpassed the average EU standard of living.

As we all know, Ireland was one of the countries most badly affected by the financial crisis through a combination of homemade problems and global factors. A succession of bubbles in equities, bonds, housing, commodity and credit markets were the key factors behind the global financial crisis that unfolded from 2007, originating in the United States.

The roots of the problem in Ireland began earlier. Following the creation of the single currency, Ireland's domestic financial services enjoyed a strong and extended boom. This was facilitated by an influx of foreign savings as access to cross-border funding for Irish banks increased strongly. It came at a time of very high global liquidity and a low risk premia. This fuelled the existing strong Irish preference for property investment and developed into a blind-spot, which was ominous in a country that had never experienced a property crash. It was very striking to us, when we researched our report, how many people we met who told us their own personal anecdotes about property investment. Unfortunately, it is hard not to overstate the impact of this cultural attitude. Property acquisition, as a topic, was almost a national obsession though not something we could easily quantify in hard data. This cultural issue is by no means the sole cause. On the economic front, relative to the domestic growth and inflation rates, monetary conditions were very easy and, in retrospect, we can see that this reinforced economic vulnerabilities. Statistical tools also failed to capture underlying fiscal deficits. The IMF later calculated that in 2007, although the headline budget was balanced, the underlying or structural deficit was 8.75%.

Euro area financial integration was also under way during this period when, following the creation of the euro, interest rates were permanently lowered for the Irish economy. Irish banks enjoyed unprecedented access to cross-border funds, while foreign banks entered the domestic market which intensified competition. At the time, cross-border regulatory and supervisory structures had not kept up with this process. Since then many of these points have been addressed through the banking union.

Back in 2007, when the crisis first really struck, the single currency initially protected Ireland and other euro area member states from the currency turmoil that they would have otherwise faced. Unfortunately, it was not enough as pressures built over the following year.

Our report also found a clear lack of budgetary discipline, with pro-cyclical policies and a gradual shift in the tax base that left it fragile and increasingly dependent on the property sector. It shifted from stable to cyclical sources like capital gains tax, corporation tax, stamp duty on property and consumer taxes. It was also unusual that Ireland did not have a property tax and yet mortgage tax deductions were offered which created subsidies that distorted commercial real estate development.

We also noted that there was insufficient surveillance from external bodies such as the EU institutions or the IMF. The IMF was not strong or consistent in its criticism of the underlying dynamics of fiscal policy. European Council opinions were favourable even if the Commission, as early as 2001, was concerned at pro-cyclical policies. However, Stability and Growth Pact commitments were not seen in doubt, during the period up to 2008, partly due to an insufficient methodology for calculating structural fiscal balances, as I have already mentioned.

Across the banking sector there was weak governance and risk management - sometimes disastrously weak. Within the banks, internal procedures were often over-ridden, sometimes systematically, and many banks were highly exposed to specific individual borrowers and property lending, especially commercial property. Incentives were also badly structured, not just bonuses for top banking executives but also for middle-management and loan officers.

Throughout this period, in the run-up to 2008, counter-cyclical fiscal or macro-prudential policies could have moderated the boom and cushioned the recession. With a different official policy mix, perhaps a soft landing would have been possible, but instead official policies and banking practices merely added fuel to the fire. For example, the Government could have mitigated the bubble by initiating fiscal policies that could have dampened, not stimulated, the economy. Supervisors could have imposed tighter loan-to-value ratios. Supervisors were neither hands-on nor pre-emptive. They were also not used to technically complex problems. There was also an absence of forceful warnings from the Central Bank on macro financial risks.

In summary, weak financial supervision and bank governance combined with official policies to leave the economy vulnerable to a deep crisis. In our view, the true burden of responsibility was quite broad. We concluded with a number of follow-up areas for consideration which are as follows. Why was there not a stronger reaction within the banks to this concentrated loan overexposure? How were such governance failures initiated? Why was the response of supervisors not more forceful? Were there failures by auditors?

Investigating the very serious breaches of corporate governance that were identified was also needed. Finally, our report stated that it was important to identify lessons for future policy, not only in Ireland but in particular in future cases of countries that may join the EU area.

The report concludes that these interlinked factors culminated to create what in many ways was a plain vanilla property bubble that ultimately burst with very painful social consequences. Taken together, we found many interconnected factors that contributed to the crisis, including insufficient critical external surveillance institutions. Ireland was a country where it seems no one was really in charge to prevent such a bubble from emerging over the previous four to fiver years that led to 2008.

Chairman: I thank Mr. Regling. I shall list the questioners in order. Senator Susan O'Keeffe, as lead spokesperson, will have 15 minutes and she will be followed by Senator Marc MacSharry who will also have 15 minutes. They will be followed by rounds lasting six minutes each for the following: Deputy Kieran O'Donnell; Senator Michael D'Arcy; Deputy Pearse Doherty; Deputy Michael McGrath; Deputy John Paul Phelan; Deputy Eoghan Murphy; Senator Sean Barrett; and lastly Deputy Joe Higgins.

I shall get matters under way. Mr. Regling, on page 44 of his report, said:

> There was a socio-political context in which it would have taken some courage to seem to prick the Irish property bubble. Even so, there are clear examples in other countries where supervisors acted to stem the tide, and this is what lacked so notably in the Irish case.

I ask him to expand on his comment for the benefit of the committee.

Mr. Klaus Regling: There are several instances in the report where we drew comparison with other countries and said that many of the factors that contributed to the problem in Ireland also existed in other countries. What struck us was that in Ireland all these factors we mentioned, which I summarised in my initial statement, were present but they were present to a stronger degree. This relates to supervision but it also relates to the governance problems within banks and the concentration risks which became bigger and bigger. So it was all there but to a degree that one could not find in other countries, or not in all the areas in other countries. If one looks at the report, for instance, there are charts that show the increase in property lending by individual banks and the concentration on that sector of the economy. This is unprecedented. There are no other cases, although maybe a little bit in Spain, but in Spain the supervisors acted quite differently. It was really a multitude of factors that all interacted in the same negative direction and the degree to which these factors contributed to the problem.

Chairman: What actions were taken in other jurisdictions that were not taken in Ireland?

Mr. Klaus Regling: In Spain, for instance, supervisors early on introduced counter-cyclical capital buffers, which is now something quite common. It is widely accepted that this is necessary. Obviously, Spain got into problems. There was also a property bubble, but the supervisors there acted earlier with instruments that were not applied in Ireland.

Chairman: That brings me to my next question before I call Senator O'Keeffe. How would Mr. Regling characterise the relationship between the banks on the one hand and the regulator-supervisor's governance structure - that is, the Financial Regulator's office and the Central Bank - on the other hand, in the years leading up to the crisis?

Mr. Klaus Regling: With hindsight it is easy to say that this relationship was not a healthy one, but one has to look back at the culture in bank supervision globally. We also make this point in the report. This was not just an Irish problem as there was a debate at the time about light-touch supervision. There was a widespread view - including in the United States, for instance - that markets would regulate themselves to a large extent. Mr. Greenspan, the chairman of the US Federal Reserve at the time, often talked about this. He is a good example because a few years ago he publicly admitted that this was a mistake. It is another example where something that went wrong in Ireland also went wrong in many other countries, but this element was then reinforced by all the other problems I have just talked about, and which are to be found in the report.

Chairman: Was there something unique about the relationship between the banks, the regulator and Central Bank system in Ireland that one did not see in other jurisdictions?

Mr. Klaus Regling: The degree of the problem was perhaps bigger because it was very light-touch supervision. It was something that the Federal Reserve in the US also thought was the right approach, but certainly not what one would want to see today. An intrusive, assertive relationship between supervisors and banks did not seem to exist, so banks were free to go in the wrong direction for too long.

Senator Susan O'Keeffe: I wish to express my condolences on the death of Mr. Watson.

Over his many years of experience, Mr. Regling has obviously read many reports and he has probably written many reports also. How would Mr. Regling describe this one in terms of it being critical? Would he say it is fairly critical or very critical? How would he describe it himself as a report presented by him?

Mr. Klaus Regling: I think it is fairly critical. When I re-read it, I also had that impression. I hope it was fair, however, because there were many things to be criticised or to be critical about. Seen against the global context, there were not only home-grown problems. It was an unfortunate combination of home-grown problems against the global background of too much liquidity, too low interest rates for too long, and the search for yields from many parts of the world. It was also the time when Ireland joined the euro area, which had positive impacts. It prevented currency turmoil and led to the permanently lower interest rate. In a way we were all learning what a permanently lower interest rate meant. It is clear to economists that this is equivalent to a very strong, stimulatory monetary action, but it was the first time that something like this happened. We were aware that monetary conditions would be very easy because of the fact that Ireland had joined the euro area and would therefore have permanently low interest rates. It was clear that policy should react to that somehow.

We make the point in the report, for instance, that there was a final appreciation of the Irish currency in the exchange rate mechanism in March 1998, a few months before the beginning of monetary union. This was only done to act against this strong monetary push that was coming from the decline in interest rates. At the same time, we had a very loose global monetary environment. We had more financial market integration in Europe, in the EU, which was also something we wanted to see. It is one of the advantages of the Single Market, and of the euro, to have more financial market integration, but this also meant that there was more liquidity available than before. All this happened simultaneously.

With hindsight it is easy to say that stronger policy action, in those areas where it was possible, would have helped a lot. The two areas available were in fiscal policy and supervisory action. Unfortunately, as we describe in the report, fiscal policy moved from being counter-cyclical early in that decade, to becoming pro-cyclical later in the decade. It therefore added fuel to the fire.

On the supervisory side there was a light-touch approach, which was not intrusive or hands-on. Instruments that were available were just not used, or used very late and very little, like reducing the loan-to-value ratios. That is something that could have happened more forcefully, but one has to see it against the culture at the time. Today, everybody who deals with these issues talks a lot about macro-prudential supervision, but that was not very fashionable at the time globally, and not alone in Europe. With hindsight, however, it was clearly one of the areas, together with fiscal policy, where one could have done something and should have done more, but it did not happen at the time.

Going back to fiscal matters, there is a real issue here for me as an economist, that we were not able to calculate and are still not very good at calculating underlying fiscal balances. It is an unresolved issue. We learn as we go along but we always know more after a few years. I mentioned the IMF data that said in 2007, as I quoted, that the nominal fiscal balance was in balance. We thought the underlying structural deficit was very small at the time. Today we know it was bigger than 8% of GDP.

Our report is critical on all these points but the criticism is spread very widely. It is also spread towards economists who have not come up with a good methodology to calculate this. It is of course critical of bank governance, supervisors and fiscal policy makers, though not only in Ireland. The global background was not helpful at all. These different elements from all sides reinforced the problems.

Senator Susan O'Keeffe: How surprised was Mr. Regling that, as he describes it, he found Ireland was a country where it seemed no one was really in charge? That is quite a remarkable thing to say. How surprised was he?

Mr. Klaus Regling: In a way, that was the bottom line - going through the different elements that contributed to the crisis, looking at bank governance, supervisors and fiscal policy. In addition, however, the external bodies that are there to monitor countries, like the OECD, the IMF and the European Commission, all failed to some extent, hence the bottom line that nobody seemed to be in charge. Of course, that was a surprise. It was also, for me, some kind of self-criticism because at the time I was in charge of economic-financial affairs at the European Commission. This is also a criticism that is directed at me, directly.

Senator Susan O'Keeffe: I wish to dwell for a moment on some of the points Mr. Regling made in the report about what people knew, or did not know, about what was going on. He said that with hindsight we know more things and macro-financial prudence has changed.

Mr. Regling states on page 35 of his report:

> ... property exposure gave rise to a very risky concentration of risks within certain institutions, and even more so across the banking system. In an economy which is not large, and which has one main financial centre, it would be surprising if this state of affairs was unknown to banks, even if formal data systems did not surface it.

I just wonder what Mr. Regling was trying to say here. Was he trying to say that people actually knew what they did not say they knew, or was he saying that there was actually a crisis of solvency and that people ought to have known that, whereas we understand that people say it was a liquidity crisis, not a solvency crisis? I am not clear what Mr. Regling is driving at there.

Mr. Klaus Regling: Looking at the data - some of them are produced in the report - the Senator will see on page 32, for instance, the increase in loans for construction and property. It is just striking how many loans went into the sector, with unprecedented growth rates. To an observer from the outside - Max Watson and I were outsiders when we came to Dublin - it would indicate that alarm bells should have been ringing loudly and clearly among the banks themselves, their supervisory bodies and the supervisors, the central banks. Obviously, it did not happen.

Senator Susan O'Keeffe: Were they ringing but no one was listening? Mr. Regling talks about the alarm bells in another part of the report. One can have alarm bells ringing all one likes but, as we know, we sometimes just switch them off. Were they ringing or not ringing?

Mr. Klaus Regling: It is the job of senior management of banks, their supervisory boards, the supervisors and the Central Bank to look at these data, but it is also the job of the outside bodies such as the IMF, OECD and the Commission. I am sure alarm bells were ringing but there was not enough attention paid to this. This we noted. We do not know about the interaction of individuals; that was not our job to find out. Again, however, one has to see it against the background of the global, EU and Irish economies. People thought at the time that things were going very well. One will remember that the time was called the Great Moderation. There was good growth, a good rise in the standard of living and low inflation. We know today there were a number of factors that contributed to this and, therefore, people whose job it was to monitor and ring alarm bells were fairly quiet globally and in Europe, because the situation seemed so much under control and so good. This is not trying to make an excuse for all the things that went wrong and for senior bank managers, supervisors, central banks and so on but it tries to explain why what happened did happen. Again, it happened in many other countries, but not always to the same degree.

Senator Susan O'Keeffe: Mr. Regling states on page 39, "it would seem quite surprising if there was no common wisdom to tap that would have pointed to the fact of high concentrations in commercial real estate lending". He seems to be suggesting that common wisdom, the knowledge people had, would have suggested there was a serious problem. I am not clear whether Mr. Regling said people ignored it or simply did not know. There is a huge difference between not knowing and ignoring. He is suggesting that they were ignoring it.

Mr. Klaus Regling: To a large extent ignoring it, yes. However, the experience in other countries at the time was also that the economy had been going very well for such a long time that those who had been critical were clearly in a minority. Again, let me look at the global economy. There were people who criticised the Federal Reserve policies for a number of years, since early in the decade. They included, for instance, people at the BIS, Raghuram Rajan, who was the chief economist of the IMF at the time and who is now the Governor of the Central Bank of India, and John Taylor, a well-known US academic in Stanford. There were people who criticised globally the monetary policy, excess liquidity and low interest rates - too low for too long, as Raghuram Rajan said - but they were clearly in a minority. The majority of the academics of the central banks of the banks globally had a different view. They all made good money when they were investing money and the majority of academics just did not share the view. Therefore, this is a combination of things that clearly went wrong in this country but one has to see it against the background internationally, where things also went wrong for quite a while.

Senator Susan O'Keeffe: On page 6, Mr. Regling states: "internal procedures were overridden, sometimes systematically." In other parts of the report, he talks about errors of judgment in bank management, major lapses in the documentation of loans, weak risk management, and the failure of corporate checks and balances. If something was systematic and internal procedures were overridden, that means people knew what they were doing. Is that a fair observation? In some cases, that is what was happening. People absolutely knew what they were doing.

Mr. Klaus Regling: That was our conclusion in some cases. Otherwise, this concentration on the property sector would not have been possible. It was not consistent with the guidelines that existed.

Senator Susan O'Keeffe: While the world might have had all sorts of contributing factors that changed our scenario, individuals took an opportunity, perhaps, to go too far, to burn, to enjoy and to override systematically. One can have any set of circumstances but it is what people do with those circumstances that counts. Is that not the case?

Mr. Klaus Regling: That is correct but, of course, we did not look at individual behaviour. That was not our mandate. We did not have access to that. However, having looked at balance sheets and published data of banks, this conclusion was very obvious.

Senator Susan O'Keeffe: The conclusion really being that there was no one in charge either.

Mr. Regling says he spoke to the ECB. With his European experience, how much responsibility does he believe the European Central Bank has for what happened here? His conclusion may be true for other countries too but we are only interested in here.

Mr. Klaus Regling: Regarding the period up to 2008, I could not put any blame on the ECB because it is one player in the global financial markets. The ECB policies during this period were not particularly different from those of other central banks like the Fed, the Bank of Japan, the-----

Senator Susan O'Keeffe: Does it have a responsibility now as we try to sort ourselves out and as we try to look forward?

Mr. Klaus Regling: A lot of things have happened since but that is not in our report. We now have the banking union. The supervision of systemically important banks is now done through the single supervisory mechanism, which is associated with the ECB. We have the European Systemic Risk Board, ESRB, a new institution also linked to the ECB and chaired by the President of the ECB. It has the mandate of macro-prudential supervision, something that did not exist before the crisis. It is a good example of what we learned from the crisis. However, again this is a global phenomenon. Macro-prudential issues were not on the agenda before 2008. After the crisis, countries such as the US and the UK created bodies like that. We have it in the EU area and it is chaired by the ECB President. Many things have happened since 2008 that are obviously not reflected in the report.

Chairman: To round off on Senator O'Keeffe's questions for Mr. Regling, did the analysis of the model that was actually in place in the lead-up to the crisis, be it domestic or international but particularly domestic, involve a description of the culture as self-regulatory in the belief the industry would actually regulate itself without intrusion?

Mr. Klaus Regling: That was the main approach. Of course, there were rules and regulations in place. We have EU directives that deal with banking supervision. Also in the United States, there were rules in place but the general approach was one of light touch from the official side. There was a lot of confidence that the banks would self-regulate in their own interest. I already quoted Mr. Greenspan, who said a few years later that this was a mistake.

Chairman: "Light touch" is a phrase that is out there. For people who are viewing the proceedings, is "light touch" ultimately self-regulation?

Mr. Klaus Regling: Yes; that is another way to look at it. There is a lot of confidence in self-regulation.

Chairman: The banks regulating themselves.

Mr. Klaus Regling: Yes - not only banks, but financial markets in general. It does not mean there are no rules at all. There were rules, but they were much lighter than what we see today after we learned lessons. In particular, the approach of supervisors was too hands-off. There were not many on-site inspections. Today there is a widespread view that the manner in which supervisors deal with banks should be more intrusive and assertive. There is also a cultural issue which goes beyond rules and regulations. It is different from the time when the view was that banks and financial market participants would self-regulate themselves to a large extent. The view was that they would do it because it was in their own interests. They did not want to go bankrupt or get into serious trouble. That was a widespread view and that is why there was light-touch regulation. There was confidence in self-regulation. That changed completely after the crisis.

Chairman: I thank Mr. Regling.

Senator Marc MacSharry: I welcome Mr. Regling back to the committee. I thank him for taking the time, voluntarily, to come here today. As he is no doubt aware, there is a reluctance from some Europeans to take part in this inquiry. That leads to my first question. I will deal more specifically with his report after that. Why does he feel there is a reluctance from European authorities to participate with the Irish people in getting to the bottom of the crisis?

Chairman: I issued a warning before the meeting with regard to Mr. Regling and the remit of his appearance today. He was informed as to the content of this meeting and what he could prepare for. If he feels that a question is outside the realm of what he has prepared for, he is free not to answer.

Mr. Klaus Regling: I think one has to ask these institutions. It is important to emphasise that - I think the committee is aware of this - I am not here as the head of the EFSF or ESM.

Senator Marc MacSharry: I am merely asking as somebody-----

Mr. Klaus Regling: I am here because I did the report.

Senator Marc MacSharry: Absolutely. I am only asking Mr. Regling that question------

Mr. Klaus Regling: The ECB did not do a report.

Senator Marc MacSharry: I am only asking that question, as we might say in Ireland, while we have him. Given his experience of working on three occasions for the IMF and the German finance ministry, it helps me in my work to ask him if it is possible for us to do our work sufficiently without the ability to ask a series of questions of those organisations.

Mr. Klaus Regling: As I already answered on the ECB, up to 2008 I do not see what they can contribute.

Senator Marc MacSharry: They would have been, arguably, responsible for a huge percentage of monetary policy.

Chairman: Senator, I am going to make an intervention here and I will move onto the next question. Mr. Regling is here to deal with his report and matters relating to it. It is not the case that when we have a witness here we can talk to him or her about whatever we want. There are very clear rules. This committee has particular procedures to which it must adhere. My role as Chairman is to allow you to ask questions, but also to allow witnesses to operate within a framework that is fair to them. I ask you to be fair to the witness and refer your questions back to the terms of reference, which include only Mr. Regling's report.

Senator Marc MacSharry: I appreciate that.

Chairman: Move on to the next question.

Senator Marc MacSharry: I have 15 minutes, as the Chairman is aware.

Chairman: You do, and those 15 minutes will be given in the questions. I will give you back the time taken by my intervention.

Senator Marc MacSharry: In fairness, Chairman, you interject between every single speaker. I am asking questions and my first responsibility is to the Irish people, as is yours, I might remind you.

Chairman: Yes, and the terms of reference of the inquiry.

Senator Marc MacSharry: If you would allow me the breadth at times to give some relevance and context to my questions, you might have time to listen.

Chairman: As long as they remain within the terms of reference of the inquiry.

Senator Marc MacSharry: If you give me the time without the interjections.

Chairman: I will give you the time.

Senator Marc MacSharry: Thank you. Does Mr. Regling feel that the crisis in Ireland could have precipitated a collapse in the euro?

Mr. Klaus Regling: Yes.

Senator Marc MacSharry: Okay. That is fine. In that context, without the benefit of hindsight, the methodology in terms of the structural deficit which Mr. Regling speaks of now, rather than in the report, which he mentioned in his opening statement, and the fact there is a lot more macro prudential focus, would it be fair to say that the structure of the eurozone for small open economies such as Ireland was incomplete and inadequate in providing them with the tools to deal with the crisis as it unfolded?

Mr. Klaus Regling: It goes a little bit beyond my report, because I had to draw on the lessons after 2008. Of course we now say that all of those who were involved, including the European Commission and the Eurogroup, and the design of the monetary union when it started in 1998 were incomplete. My institutions, the EFSF and ESM, did not exist. The founding fathers of the euro did not believe that such an institution, which would provide emergency finances when a country loses access to markets, would be needed because they could not imagine that a member of the euro area could lose market access. Also, we could not imagine a crisis of the magnitude we saw in 2008, 2009 and 2010. It was the worst economic crisis in 80 years and was not anticipated. It is one example. There are many others.

The surveillance was too narrow and focused on fiscal policy, which is important, but we did not pay enough attention to other imbalances which became very large, such as divergences in competitiveness. Ireland is a prime example of that. We also had a chart in the report showing that unit labour costs in Ireland increased by 45% more than was justified by productivity gains from 1998 to 2008. This led to the very large current account deficit, not surprisingly. We now have a totally new system of surveillance and monitoring of-----

Senator Marc MacSharry: As Mr. Regling said - we are to talk about the period in the report and the report itself - at that time the structure was incomplete.

Mr. Klaus Regling: It was incomplete, but-----

Senator Marc MacSharry: Can I move on?

Mr. Klaus Regling: No, because, to answer your question, it was incomplete, but we see that some euro area countries managed, within the incomplete system, better than others. That is why the home-grown issue also plays a role. It was the same system for all the euro area countries. When it started there were 11, and there are now 19. Some had serious problems, and one country had more serious problems than Ireland.

Senator Marc MacSharry: More serious, of course.

Mr. Klaus Regling: Others managed. It is a combination, therefore.

Senator Marc MacSharry: Countries were not able, for example, to adjust their own interest rates, in that aspect of monetary policy. Given that there were no bears in the market, with the exception of Professor Taylor in Stanford and Professor Morgan Kelly in UCD, what pro-cyclical policies could a Government have implemented in 2006 to prevent this crisis? At that stage, if we had listened to the IMF or the Commission, what could we have done?

Mr. Klaus Regling: Obviously monetary policy is the same for every country in the euro area. We also know - and this was known to people who worked a lot on this and to the European Commission when I was there, as we wrote about it - monetary policy is often pro-cyclical, unavoidably. Countries that grow stronger than the average also typically have higher inflation rates than the average. As a consequence, they have lower real interest rates. The opposite is also true. Countries that do not grow so fast have lower inflation rates and, therefore, higher real interest rates. This means there is a pro-cyclical impact from being in a monetary union, coming from the monetary conditions. This is no surprise. We knew it when monetary union started. It also happens in regions of large countries, such as in the United States. The mid-west or Florida can have very different monetary conditions and also typically-----

Senator Marc MacSharry: Given the imperfect nature of the eurozone and its structure, as we spoke about earlier, we were not really prepared for that aspect. Would that be fair to say?

Mr. Klaus Regling: To some extent, but let me talk about it. I would not go too far because someone cannot excuse everything with that. The fact that monetary conditions could be pro-cyclical was well known to policy makers. The Senator asked what could be done at the national level, responding to national differences, and here he is back to fiscal policy and supervisory action. I already talked about that briefly earlier. Fiscal policy could have been counter-cyclical, but what we actually see - and we already knew it at the time - is that fiscal policy was moving, from the first half of that decade to the second half, from being counter-cyclical to becoming pro-cyclical, and that added fuel to the fire. Fiscal policy could have addressed some of the problem, but it did the opposite - although, again, due to the lack of good methodology, the full extent was not known and supervisory action that could have been taken was not taken - for example, loan-to-value ratios were reduced very late and by very little. Those are the two areas where the national authorities can do something even in an incomplete monetary union.

Senator Marc MacSharry: In his report, Mr. Regling said we had the home-grown issues and, within that, the regulatory environment, the supervisory element and so on. Is it fair to say that our Central Bank and regulator were not fit for purpose at that time?

Mr. Klaus Regling: That is another way of putting it. I said nobody seemed to be in charge. They did not play the role as forcefully as they should have.

Senator Marc MacSharry: If there was a period at which Mr. Regling would look back - obviously, there was no limit on the length of time he looked back before 2008 - what period would be most appropriate, in his view, for this investigation to look at in terms of the management of the Central Bank and the regulator?

Mr. Klaus Regling: It is probably five or six years before 2008, so that would be from 2003 onwards. It is in those years that the data clearly shows that the property bubble became very big, so bank lending grew sometimes at 80% or 90% per year. That was when these problems appeared, not only in Ireland but in many other countries of the world. It was a global environment, with the EU integration of financial markets and the home-grown problems of not responding adequately to that. I think it would be that five-year period.

Senator Marc MacSharry: In his preparations for the report, no doubt Mr. Regling would have spoken to the head of the Central Bank. Did Mr. Regling speak to the previous heads of the Central Bank or just the current or the then head of the Central Bank?

Mr. Klaus Regling: I will not mention any names. We interviewed about 100 persons. This included Government officials, bankers-----

Senator Marc MacSharry: Of course I do not want Mr. Regling to mention any names. In the context of the structure of the euro and how the 19 heads of central banks operate, each being a member of the governing council of the ECB, in Mr. Regling's understanding at the time - I suppose it is the same now - when the 19 central bankers are sitting around in Frankfurt, have they a fiduciary duty to the mission of the European Central Bank and, if so, does that override any duties and responsibilities they have to their national central banks when they are in that room?

Mr. Klaus Regling: What the Senator is indicating is that central bank governors of the euro area have two hats. One is the management of their national central banks at home, but when they attend the meetings in Frankfurt as the ECB they are there in their personal capacity. The Maastricht treaty is very clear on this - they are not representing their country.

Senator Marc MacSharry: So they must act with the information they have in the best interests of the mission of the ECB rather than the member state.

Mr. Klaus Regling: Of the euro area as a whole.

Senator Marc MacSharry: In the last part of his statement, which was very good, Mr. Regling mentioned, as did Senator Susan O'Keeffe, that Ireland was a country in which it seemed no one was really in charge to prevent such a bubble from emerging over the four to five years before the crash. In his research and interviews with 100 people, and no doubt from reading other reports and media commentary of the day, he will have noticed that, apart from the John Taylor he mentioned from Stanford - we had Morgan Kelly here, and a number of other commentators - by far the majority of academics and other commentators were predicting soft landings and so on. In his look at the Oireachtas, the Parliament, can Mr. Regling reflect for us on the discourse that was going on? Clearly, we know what Government was doing, but in terms of the Opposition, was the Government being held to account to the extent it ought to have been? Was the Opposition advocating counter-cyclical policies or promoting an even more pro-cyclical set of policies? Can Mr. Regling give us an insight into that?

Mr. Klaus Regling: I do not know what the Opposition in the Parliament at the time was saying and how it was differentiating itself from Government policies. I do not know.

Senator Marc MacSharry: I thank Mr. Regling.

Deputy Kieran O'Donnell: I welcome Mr. Regling and sympathise with him on the passing of Max Watson. I was here when Mr. Watson appeared before the committee. Mr. Regling concurred with a statement that the Irish crisis could have threatened the euro. I want him to expand on that. Why did he agree with that statement?

Mr. Klaus Regling: This is true for Ireland; it is also true for several of the other countries that received emergency financing from my institutions.

Deputy Kieran O'Donnell: Ireland was the first country.

Mr. Klaus Regling: Ireland was the first country to get money from us. Greece got bilateral loans first, and then also received money from the EFSF. A very simple legalistic answer would be that the EFSF and ESM treaty actually states that we can provide financing only when the euro area as a whole is threatened. That would be the legalistic answer. Otherwise, we would not become active. I think the reasons behind that are clear. When the crisis hit Ireland, it was the first EFSF case. Greece was hit earlier and the problem was solved initially in a different way. There was a serious threat for the euro area as a whole because we saw at the time a lot of contagion - by "contagion" I mean the problems jumping from one country to another and more and more countries losing market access. Then there was the threat that if no emergency financing was provided, countries would have had to leave. That was when we created the EFSF. That was one clear conclusion. That is why we are much better equipped today than we were in 2009 and early 2010. The EFSF was created in May and June 2010 to provide emergency financing. Also, from the investor side - the other side of the coin - it is very clear today that at the time, many of the big investors were not in a position to differentiate between the different European economies - they had not done their homework studying the differences - so when one country got into difficulties they did not know how to interpret that and they also withdrew from the other countries.

Deputy Kieran O'Donnell: Our guarantee was put in place on 29 September. It appears to have been done after very little deliberation with the ECB. Was it Mr. Regling's understanding that there were deliberations with the ECB prior to the guarantee?

Mr. Klaus Regling: I cannot say, firstly because I was not at the ECB, and also because our report ends before that period. I cannot really give a personal answer to that question. I take note of what the Governor said last week and I have a lot of sympathy for that, but that is all I can say.

Deputy Kieran O'Donnell: When Mr. Regling says he has sympathy for that, in what sense does he have sympathy for the Governor?

Mr. Klaus Regling: I think he stated the problem correctly. He said that with hindsight it is always easy to say what went wrong and what went well. Importantly, he said certain instruments were not available at the time. In the past few years we have created a completely new system for bank resolution in the context of starting the banking union. Bail-in is one of the important elements that exists now but did not exist earlier.

Deputy Kieran O'Donnell: Mr. Regling was a director in the European Commission up to 2008 on the economic side. I refer to the Stability and Growth Pact construct. Mr. Regling makes reference throughout the report to the fact that alarm bells should have gone off in terms of the increase in lending. He speaks about the systemic risk throughout the banks which it seems was important beyond reasonable doubt. He then argues that clearly the banks themselves should have known where they were trading cross-guarantees with different banks.

Does Mr. Regling believe that if the Irish Government had contacted the ECB on the night of the guarantee, there could have been a situation where Anglo Irish Bank would have been allowed to go into liquidation and to fail? Could a different construct have been used in terms of a guarantee that would have cost Ireland and the taxpayers less money?

Mr. Klaus Regling: I cannot really answer. Our report does not cover that, deliberately. Our mandate ended on 28 September. I do not know what happened between the Irish Government and the ECB at the time----

Deputy Kieran O'Donnell: Does Mr. Regling believe----

Mr. Klaus Regling: I do know that certain instruments were not available.

Chairman: Deputy O'Donnell is pushing a question that is leading towards subjective and hypothetical thinking. If the Deputy could move to the real substance of Mr. Regling's report I will give him another half a minute to ask a question to which he can get an answer.

Deputy Kieran O'Donnell: When Mr. Regling says that no-one was really in charge, who is he talking about? Is he talking about the political establishment, the regulators or the banks, or is he saying that everyone was to blame in terms of the institutions, including the Government and the political system?

Mr. Klaus Regling: That is our main point. We think the responsibility is very widespread. All these actors have to take some of the blame.

Senator Michael D'Arcy: Mr. Regling uses the term "moral courage to penalise" the authorities, the Central Bank and Financial Regulator. Would that term also apply to the body politic? I am speaking about Government and Opposition.

Mr. Klaus Regling: No, I think the reference one finds in the report with those words refers to the regulators, supervisors and the Central Bank. It is related to what I discussed earlier already, that there was this light-touch approach to supervision, not very intrusive, not very assertive and therefore also imposing penalties just did not happen. The rules which existed were applied very loosely.

Senator Michael D'Arcy: What is Mr. Regling's view on where the greatest failings were? Who were the people with the most responsibility who could have had the largest impact upon what turned out to be an expensive day for the Irish taxpayers?

Mr. Klaus Regling: That is not the way we looked at it. Our main conclusion was what was truly striking in the case of Ireland is that all these different elements came together in the wrong way, unfortunately, so we did not want to single out any particular one.

Senator Michael D'Arcy: Mr. Regling conducted a fairly in-depth report. Does he have an opinion on where the greatest failings were? Were they with the banks' boards of directors, non-executive directors, executive directors, the authorities, or where, in his view?

Mr. Klaus Regling: I think all of them because when I see that some banks increased their property lending by 90% per year, senior management should not have allowed that. The supervisory board of the bank should have asked many questions, such as whether this does not create too many risks. The supervisors should have asked more questions. It was probably out of line with some of the rules on concentration risks. The Central Bank should have asked questions. The Government should have taken appropriate action to counterbalance that. Again I am back to this view that it is a very widespread phenomenon where one should not single out one person or one group of actors.

Senator Michael D'Arcy: There is the issue of the large increase in the banks' balance sheets. Mr. Regling does single out the commercial aspect of that on page 6 of his report. We now know 190 people who were transferred into NAMA had tens of billions of euro - over 50% of the entire loan book. When I say 190 people I mean 190 individuals or corporate entities. Should that have been pulled up immediately?

Mr. Klaus Regling: The one point we make repeatedly is commercial property was an even bigger problem than housing. That was a clear conclusion. Housing of course also was a housing bubble, but the commercial property was the one that probably was economically more important and led to bigger losses in the end.

Senator Michael D'Arcy: The report ends immediately before the bank guarantee. The weekend before that, there was a liquidity crisis within a bank that was part of the IFSC, DEPFA, which was part of Hypo Real Estate. Did Mr. Regling or his report analyse the circumstances in the Irish authorities? What requests went to the Irish authorities regarding the circumstances of DEPFA?

Mr. Klaus Regling: No, we did not get into that.

Senator Michael D'Arcy: He did not, even though there was a request made to the Irish authorities for aid of some nature?

Mr. Klaus Regling: Yes, but we did not get into that.

Senator Michael D'Arcy: The report does not deal with NAMA, but can I ask Mr. Regling's view on the attempted solutions subsequent to his report - the establishment of NAMA? It is a follow-on from the question. There is an Irish saying that "if I was going somewhere I would not start from here."

Chairman: Please ask a question, Senator. You have two minutes left.

Senator Michael D'Arcy: What are Mr. Regling's views on the attempted solutions?

Mr. Klaus Regling: Again, this is not part of the report, but of course I followed what happened in this country and in other countries because Ireland is one of the five countries where my institutions have provided a lot of financing. What happened here with NAMA also happened with most other countries - to create an entity that priced bank resolution and separated bad parts and good parts of the banks. In that sense, it was the way that was also chosen in all the other countries. On the details I cannot comment but let me stress again that crisis management is always difficult because decisions have to be taken in real time, before all the information that one would like to have is really available. That is a very general statement but unfortunately it is true.

The other point, I already mentioned it briefly, is that certain instruments and frameworks that were developed afterwards were not available in 2008, particularly on the bank resolution side.

Senator Michael D'Arcy: Mr. Regling quotes the Reinhard and Rogoff book, "This Time is Different". Am I correct in saying that, in terms of the Irish crisis, it was not different but was the same as every other property bubble internationally for centuries?

Mr. Klaus Regling: It was certainly not different. What was different in the Irish case, and I hope it comes across reading the report, is this very unusual interaction of global elements, European elements and home-grown problems. They are all coming together unfortunately at the same time and all pointing in the wrong direction.

Senator Michael D'Arcy: The question I have is----

Chairman: You are out of time, Senator.

Senator Michael D'Arcy: Just to finish the question----

Chairman: No, you are over time.

Deputy Pearse Doherty: Go raibh maith agat agus cuirim fáilte roimh an tUasal Regling chuig an coiste. I wanted to start by looking at the area of commercial property. Reading Mr. Regling's report, one of the things that strikes me is that he emphasises time and time again the role that commercial lending, commercial property played and the concentration. There has been a narrative there and indeed I think some of the comments he has made play into that narrative, where he talks about the national obsession that people had with property. We had our own Taoiseach in Davos saying that we went mad borrowing and so on.

Can Mr. Regling talk about the role commercial property played in that? The information we now have from the Nyberg report suggests that 50% of the Irish loan book of Anglo belonged to 20 individuals, 51% of the loan book of Irish Nationwide was made up of 25 individuals and 190 borrowers made up €62 billion of debt. When we talk about the property bubble and the crisis here, was it essentially a commercial property bubble and was it essentially a small number of individuals?

Mr. Klaus Regling: Of course one had both. One had the housing bubble as such - real estate - and when we talk sometimes about the obsession of the Irish public with real estate I think we refer to that. People really thought prices would never fall because the collective memory did not exist, unlike in the UK for instance where people know that once in a generation there is a crisis in the housing market and prices drop by 10%, 20% or 30%. This collective memory did not exist here, so people thought it would always go up and the investment could not go wrong. That relates I think to real estate. On the property side, our research suggests that economically it is a more serious issue. Data were quoted from Peter Nyberg's report. He did his report about a year later so we did not look into that in that detail. I take it that these numbers are the right ones but we did not work on those ourselves. Economically, this misdirection of capital hit the Irish economy even more than the housing bubble because it seems that a lot of investment took place that was never really viable and will never be viable in the future. It is a real loss, and that is quite different from real estate where we see already that prices are recovering.

Deputy Pearse Doherty: If we look at NAMA, which again appeared afterwards, we see from reports by NAMA that housing made up less than a fifth of NAMA's assets. One of my questions relates to the concentration of commercial property, which was the majority of assets that went into NAMA. Only 54% of it was within the Irish State. Could Mr. Regling expand on the role in the crisis played by the credit and commercial lending and the activities that took place outside of the State?

Mr. Klaus Regling: That is another phenomenon that one finds also in other countries. Given the very ample liquidity and the search for yield, banks and investors in general look to other possibilities to make money. They have leveraged huge liquidity. If they do not find opportunities at home, another way out is to go abroad. By the way, a third opportunity is to invest in strange assets such as sub-prime mortgages and other such assets. They are the three possibilities – all of which are not very good. We saw that happening also in other countries. Indeed, it was striking that some of the Irish banks got into property deals quite far away from Ireland.

Deputy Pearse Doherty: Mr. Regling mentioned-----

Mr. Klaus Regling: Of course some integration of financial markets in Europe is desirable and we wanted that, but it happened too quickly and went too far and without good risk analysis.

Deputy Pearse Doherty: Mr. Regling mentioned in terms of alarm bells that banks should have known the concentration of commercial property lending. Mr. Regling's late colleague, Max Watson, also mentioned when he was before the finance committee in 2010 that supervisors should have known. When one has a bank, for example, Anglo Irish Bank, that has 50% of its Irish loan book lent to 20 individuals, what type of alarm bells should have sounded and what should have been the reaction? Is it acceptable to not sound those alarm bells given the knowledge that Mr. Regling believes that the banks knew about the concentration of lending and that his late colleague believed that the supervisors would have also known?

Mr. Klaus Regling: Yes, it is one of the clear failures.

Deputy Pearse Doherty: Why would they fail to do that? I assume – please correct me if I am wrong – that 50% of the lending of a major institution to 20 individuals is something unheard of in banking. Is that correct?

Mr. Klaus Regling: I cannot confirm the data as they come from the Nyberg report. They are probably correct but they are not part of our report. Without going into the data of individual banks, the phenomenon Deputy Doherty describes points very clearly to failures of senior bank managers, the supervisory board and the supervisors. That should have been caught and addressed. Again, it was in the context of the great moderation and the belief that banks would regulate themselves. I do not wish to blame only the people at the time, it was also the culture at the time which was to be blamed, and we have learned from that.

Deputy Pearse Doherty: I wish to look forward. Mr. Regling mentioned that the crisis had the potential to destabilise the euro. I take it that the response to our crisis, in particular in 2008, could also have had the effect of saving the euro. Could Mr. Regling elaborate on that? The language used in the policy lessons to which Mr. Regling referred on page 43 is interesting. He talked about the need for closure, including for the Irish people, and the need for justice to be done. What role does he believe our European partners and institutions have to play in that regard? Many believe the best way to achieve closure is to get back some of the money that was injected into the banks.

Mr. Klaus Regling: Deputy Doherty has mentioned one very specific aspect. For me, what has happened goes a long way in terms of closure because the European partners and the euro area as a whole, have developed a completely new system. Monetary union today is different from monetary union as it was designed during the 1990s and in the Maastricht treaty. We now have emergency financing available through my institutions. We have much broader surveillance. We have a banking union. Countries are under stricter economic policy co-ordination that goes far beyond the fiscal side, which was always co-ordinated through the Stability and Growth Pact. Now we also address all the other areas that can lead to problems. We have an excessive imbalance procedure that looks at current accounts, wage developments, and competitiveness among other matters. It is a new system. That is what the European partners could do. In Ireland, Parliament has done a lot of work in that regard. There are also proceedings going on against individuals. All of that is important.

Deputy Pearse Doherty: Does Mr. Regling not see getting the money back as part of the closure?

Chairman: Deputy Doherty is well over time at this stage. He has had almost eight minutes.

Deputy Michael McGrath: I welcome Mr. Regling. I will take him back to the fraught environment in September 2008. Lehman's bank filed for bankruptcy on 15 September. What would have been the implications for the eurozone if a bank had collapsed in the eurozone, not necessarily in Ireland, if there was a disorderly failure of a bank at a time when there was such a liquidity crisis following the collapse of Lehman's?

Mr. Klaus Regling: The problem is that no one can be absolutely certain about that. We learned that through Lehman's. I remember very well that the weekend before Lehman's was allowed to fail, after the US authorities had rescued several other big banks, they reached the point where on that particular weekend in mid-September they decided to let one go. I remember many editorials in global newspapers that said indeed the time has come to let one of these big banks fail. That indicates to me that nobody can really pretend that he or she knew the consequences. Lehman's has shown that the consequences can be unpredictable. We just do not have experience. In today's world where even banks that do not belong to the top ten can be so interconnected through new financial instruments that did not exist 20 years ago, the implications go far beyond what one could imagine. That is the lesson from Lehman's. Therefore, it is very hard to say what exactly would have happened if one of the big European banks would have gone under. At the time it was decided that after Lehman's it was too risky to do that also in Europe.

Deputy Michael McGrath: By whom was it decided?

Mr. Klaus Regling: I think by the collective body of policy makers in Europe, in the euro area and in individual countries.

Deputy Michael McGrath: Would it not have been a national decision at that time to let a bank go?

Mr. Klaus Regling: Yes, certainly it is mainly a national decision, but of course in the euro area what happens in one country has an impact on other countries. That is why the finance Ministers meet every month in Brussels or more often if necessary. The central bankers work together. The supervisors work together. That is the international responsibility, but decisions are taken normally after talking to many others. As I said earlier, sometimes decisions also have to be taken very quickly without all the information one would like to have. Crisis management is not easy.

Deputy Michael McGrath: I suppose what I am asking is whether there was a no bank should fail policy in the eurozone in the wake of the collapse of Lehman's in September 2008.

Mr. Klaus Regling: I do not think it was a policy in the sense that it was written down anywhere. I am not aware of that but I think particularly after what happened at Lehman and the aftermath of Lehman there was a feeling that one had to be very, very careful here.

Deputy Michael McGrath: In Mr. Regling's report in terms of holding a lot of people and organisations responsible, one could say that nobody is really being held responsible for the crisis. The question that many people will want answered is why no one in authority, whether it be within the banks, the regulator, the Central Bank, the Department of Finance, the Government or the external bodies, shouted "Stop" when this problem was building up and it was clear that a crisis could potentially develop, that risks were being developed in the Irish economy? That is the question many people would want to have answered. Mr. Regling met with many of the key people involved. Why did nobody see it coming? Why did nobody shout "Stop" in the years leading up to 2008?

Mr. Klaus Regling: As the report states, this was indeed the problem. It was a failure of all those involved. The only way to understand it is to think back to the time when there was great moderation, economic developments seemed fantastic, there was strong growth and a growth rise in the standard of living without an increase in headline inflation and as prices, including housing prices but not only those, went up, it was not seen as such a problem at the time. Today, it is seen as more of a problem. Macro-prudential tools were not well developed and were rarely used, although they existed. All these things are different today. We have learned from this but at the time it was not the case and that was not only here but also in other countries.

Deputy Michael McGrath: On page 35 of Mr. Regling's report, he touches on the issue of remuneration and bonuses for people working in the banks and he makes an interesting point that the perception, as such, would have been that there were top management bonuses and the awarding of stock options on a large scale, but Mr. Regling states that one should not neglect incentives set for middle level bank management and indeed loan officers. Could he elaborate on what he means by that and the role that played in the lending policy that was being pursued by the banks, the role that people played by virtue of how they were going to be rewarded for decisions that they made in their jobs?

Mr. Klaus Regling: It was fairly common practice to have bonuses for top management but it was unusual that loan officers were also rewarded for providing more loans. We know these kinds of incentives can lead to certain behaviour.

Deputy Michael McGrath: So the more they lent out, the more money they got in bonuses.

Mr. Klaus Regling: Yes and then they probably did not do the credit analysis as thoroughly as they should have. In addition, looking at the increase in loans to real estate during that period, it was probably impossible for the loan officers to do a thorough credit analysis. There were just too many applications, otherwise this jump every year would have been impossible.

Chairman: Can I expand on what Deputy McGrath has raised with Mr. Regling? Was the bonus culture in the banks at the time, which existed both at senior management and middle management level, particularly targeted at the property sector and lending into the property sector?

Mr. Klaus Regling: I cannot recall the details - it is too long ago, but I think it was because it seems the big banks' main business was geared towards increasing lending to the property sector. The data show that very clearly.

Chairman: Is it your judgment that the banks were incentivising growth in property and in property lending?

Mr. Klaus Regling: Yes, I think that was our conclusion.

Chairman: Third, and this is my last question before I move on to the next questioner, was middle management incentivisation through bonuses particularly unique to Ireland or was that a practice mirrored in other regions across the eurozone?

Mr. Klaus Regling: I think it was certainly more so here. I am not aware of it in other countries but I may not know everything about the other countries. It seemed to be certainly stronger here.

Chairman: Thank you. The next questioner is Deputy John Paul Phelan and he has six minutes.

Deputy John Paul Phelan: Mr. Regling is welcome. In his presentation today, he posed the question of whether there were failures by auditors. In his view, in drawing up his report, were there failures by auditors in the Irish banking institutions?

Mr. Klaus Regling: We raised the question, and it was one of several, because that was part of our mandate. We could not get to investigate that in the report so I do not have an answer but it seemed an obvious question to ask given what we see in the balance sheets of banks and how their loan portfolio developed and on the concentration and other things we have already discussed here. The question for me then is quite obvious - why have auditors, among many others, not been ringing the bells? It was a question that we put at the end because we did not get into that. We did not interview the auditors.

Deputy John Paul Phelan: From Mr. Regling's experience, was that a uniquely Irish thing in terms of our difficulties in the banking crisis, or were there questions over auditing in other countries that experienced difficulties as well?

Mr. Klaus Regling: I can only answer that indirectly. My feeling would be that in other countries where we have seen big housing bubbles and that occurred in Spain in the euro area and in the Baltic countries outside the euro area, but in regard to the EU where they had a similar phenomenon of very strong lending to commercial and real estate properties, there were probably similar problems but I never researched that.

Deputy John Paul Phelan: I want to turn to page 5 of the Mr. Regling's report where he spoke about a pattern of tax cuts that left Government revenues fragile. Can he outline briefly what he meant by the pattern of tax cuts?

Mr. Klaus Regling: The fiscal policy, as I already said, turned pro-cyclical around 2004. There was a problem on both sides. Expenditures went up but the Deputy's question is mainly on the revenue side. It is also striking that expenditures after 2004 - there is a chart there - were growing faster than nominal GDP. Until then it grew less than nominal GDP so that was one problem. On the revenue side, we mentioned in our report that the share of cyclical taxes like property taxes and sales taxes increased significantly. That makes the system more vulnerable because, with hindsight, we know that these sources of tax revenue disappeared with the crisis. That was a very strong reason the overall fiscal deficit became so big. Unfortunately, with hindsight, that is exactly what happened. The deficit became big because the reliance on cyclical revenue had become so large.

Deputy John Paul Phelan: Regarding those cyclical taxes, in 2006 they formed about 30% of the overall tax take in Ireland. What should that figure be in Mr. Regling's view?

Mr. Klaus Regling: I am not a tax expert. I cannot give the Deputy that answer. It seemed to be higher than, say, an OECD average but I just cannot say what is the normally accepted ratio. I do not know.

Deputy John Paul Phelan: Mr. Regling also mentions in his report that tax breaks to developers seemed to have been granted on almost an *ad hoc* basis and not in a fully transparent way. Can he elaborate on how he came to that conclusion?

Mr. Klaus Regling: That is what we heard, that these tax breaks were provided. We could not find any clear policies on this. That is why we wrote the sentence the way the Deputy read it, that it seemed to be *ad hoc* but that is it. We could not find policies in place that would have governed this in a transparent way.

Deputy John Paul Phelan: Finally, in his report Mr. Regling said there was scope to mitigate the risks of the boom-bust cycle through prudent fiscal and supervisory policies. Why in his view were those steps not taken in Ireland?

Mr. Klaus Regling: I already mentioned that fiscal policy could have been counter-cyclical. Instead it was pro-cyclical. Supervisory actions could have been taken but were not taken. Again, it is a little like the questions from the Deputy's colleagues. One has to see it to some extent against the culture of the time. People thought, and not only in this country, that we lived in the great moderation where everything was perfect, that high growth would continue forever, that there would be no inflation and no problems, and that markets would regulate themselves. We learned it was an illusion but one has to keep this environment in mind if one tries to understand why the actors did not use instruments that seemed so logical with hindsight and should have been taken.

Chairman: I call Deputy Eoghan Murphy who has six minutes.

Deputy Eoghan Murphy: Picking up from my colleague's questions on the policy side, one of Mr. Regling's policy lessons is that fiscal policy should not be designed and tax bases should not be eroded for distortive goals. What does Mr. Regling mean by "distortive goals"?

Mr. Klaus Regling: In this context, distortion really means being in favour of real estate and property, because we see the tax exemptions and the possibility at the time to deduct interest rates on mortgages. All these things that promoted, from the fiscal and tax sides, moving in the wrong direction and fuelling the bubble led to the distortions.

Deputy Eoghan Murphy: Mr. Regling said there was no clear policy evidence for why the changes were made in the tax structure at the time.

Mr. Klaus Regling: That is why we said it was *ad hoc*.

Deputy Eoghan Murphy: When Mr. Regling appeared at a meeting of the finance committee in 2010, he said that, in producing his report, he did not interview the Prime Minister at the time, the Taoiseach.

Mr. Klaus Regling: That is correct.

Deputy Eoghan Murphy: Why was that?

Mr. Klaus Regling: I promised not to mention any names but I think it is known we interviewed several finance Ministers. I do not know; I think we did not try to interview the Prime Minister. We talked to so many people that we thought we had a pretty good impression of what we needed to know for the report.

Deputy Eoghan Murphy: Mr. Regling was aware that the Taoiseach was a Minister for Finance during the period in question.

Mr. Klaus Regling: Sorry?

Deputy Eoghan Murphy: Was Mr. Regling aware that the then Taoiseach was previously the Minister for Finance during the period covered by the report?

Mr. Klaus Regling: Of course. I actually met him in that capacity when I worked for the Commission, in the ECOFIN.

Deputy Eoghan Murphy: He decided not to interview the Taoiseach when he was doing this report.

Mr. Klaus Regling: Yes.

Deputy Eoghan Murphy: Let me move on to the regulation model. I do not know whether it is a contradiction in Mr. Regling's report but he talks about the structure or regulatory model at the time having been an experiment and about it coming from a compromise. When his colleague, Mr. Watson, was in front of the finance committee, he said in relation to not having the prudential director on the board that everyone knew it was wrong, so much so that they wrote to the Department of Finance and said, "We cannot possibly do that". It was said he was to be put on a board anyway. Mr. Regling concludes that the design of our regulatory system was not the issue. Can he expand on what was happening in terms of the design, in the first instance, and why the design was not an issue given what happened?

Mr. Klaus Regling: Yes. Many countries have experimented with trying to find the correct design for supervision. Some countries from the beginning left the matter with central banks; others took it out, as in the UK, but it has now put it back with the Bank of England. These things are going back and forth. Max Watson's and my conclusion, not only for Ireland but globally, is that the structure plays less of a role than the culture. We are not saying the structure, the institutional set-up, is unimportant but that it plays less of a role than the culture. It is more important that the culture be the right one. If the people play their role in an assertive hands-on way, that is more important than the institutional set-up because, even if the institutional set-up is perfect - if one can find a perfect set-up - but there is a hands-off, non-intrusive and too-polite approach in the belief that markets will find a way themselves, that set-up does not really help. That is why we came to this conclusion, which is a global conclusion and not one only for Ireland.

Deputy Eoghan Murphy: To be clear on that, although there were clearly problems in putting together this regulatory infrastructure, no matter what design we might have ended up with and no matter why we ended up with it, ultimately, given the way it was implemented it was not going to work in the way it should have.

Mr. Klaus Regling: If the culture is not the right one and if the people in charge, whatever the institutional set-up, are not playing their role as they should, then the best institution does not help. However, I do not want to say the institution does not matter at all. It is important to get it right and have the lines of communication correct. The right people have to be at the right meetings. All that is important. We only want to say it is even more important that the people in charge really play their role well.

Deputy Eoghan Murphy: Mr. Regling spoke about the view in Europe prior to our crisis and bank guarantee on letting a bank fail. Was there a view or policy on bank nationalisation?

Mr. Klaus Regling: I do not think there was a policy. When the crisis hit, all this came unexpectedly. That is why we did not have the institutions in place, such as my institution. There were not policies in place that one would wish today with hindsight had been in place. Therefore, there were approaches and decisions taken without having a general policy developed first.

Deputy Eoghan Murphy: I will ask my final question. Mr. Regling mentioned culture and talked about cultural attitudes in this country. When Mr. Wright, who was in the Ministry responsible for finance in Canada, was before us, he referred in his report to Ireland failing the test of prudent fiscal management. Does Mr. Regling see any cultural problems or aspects in this country that make it difficult for us to manage euro membership policy formation and everything that goes with it?

Mr. Klaus Regling: No. In this country, the people have learned. In other countries where we saw problems during the crisis, people have learned. In the euro area as a whole we have learned. The institutions, such as the Commission, also have learned. I would not support at all the Deputy's implication that Ireland, even today, is not fit for the monetary union.

Chairman: I call Senator Barrett.

Senator Sean D. Barrett: I thank Mr. Regling for his report. Was ELA available in 2008?

Mr. Klaus Regling: I would assume so because ELA is a concept that existed from the beginning of monetary union. I would think so but I cannot remember exactly what happened and what was given to which banks, but in a general sense, the answer is "Yes".

Senator Sean D. Barrett: Why was it not availed of in either Brussels or Frankfurt, or in Dublin?

Mr. Klaus Regling: ELA is always given by the national central bank but the ECB in Frankfurt has a veto right.

Chairman: ELA refers to emergency liquidity funding.

Mr. Klaus Regling: ELA stands for emergency liquidity assistance, provided by the national central banks. They also carry the risk but, of course, the ECB in Frankfurt keeps an eye on it. Brussels has nothing to do with that. I just do not know what happened in 2008 with ELA. That is something about which the Senator would have to ask Governor Honohan.

Senator Sean D. Barrett: Mr. Regling mentions on page 15 that Canada was very successful in avoiding a banking crisis, despite being next door to the United States. What aspect of Canada might this committee look at?

Mr. Klaus Regling: It is an interesting comparison because Canada got through the crisis very differently from its neighbour and some European countries, but the banking structure in Canada is completely different. There are six large banks, almost equal in size. They had a much more hands-on supervisory system. What happened in the US, for instance, was that the originate-and-distribute model that contributed so much to sub-prime mortgages and the development of financial instruments that were rated triple A but worthless afterwards just did not feature in Canada. In Canada, when somebody wanted a mortgage, one went to the bank and it would proceed in the good old way of doing a credit analysis and then deciding whether to give a mortgage. In the US, this system did not exist any longer in the second half of the last decade. Everything was done by the financial markets. Nobody really did a thorough credit analysis, as a loan office and bank should do, and that is why it all got out of control. That was the origin of the global financial crisis. Canada just kept its old banking model whereby a mortgage was given by a bank. It also stayed on the books of the bank, and that is why the bank felt more responsible for doing a good credit analysis. It knew that if it did a bad one, it might end up with a loss. It is very interesting in that there was very different development in the two countries.

Senator Sean D. Barrett: How many of our problems were imported from the design faults in the euro at the beginning?

Mr. Klaus Regling: Some, as I tried to make clear. The report says it. However, I must always come back to the combination of global factors, including too much liquidity, interest rates that were too low, European problems, and not being fully aware of what it means if a country enters monetary union and interest rates come down permanently. In the case of Ireland, long-term interest rates were basically cut in half permanently. This created a monetary boom. We knew that this would happen but the extent and consequences were not fully appreciated. We did not have available to us the instruments, such as ESF and ESM, at the beginning of the crisis. We did not have a banking union and we did not have the ESRB, the body that is now in charge of macro-prudential risks. We did not have a banking union, we did not have the ESRB, the body that is now in charge of macroprudential risks. We tried to co-ordinate fiscal policies through the Stability and Growth Pact but we did not systematically look at other imbalances like current account imbalances, competitiveness imbalances, all these things have been corrected but they were not there in the beginning and it contributed to the crisis. It is a combination of global, European and national failures.

Senator Sean D. Barrett: Most Irish economists opposed joining the euro because of those design faults. I think while Mr. Regling has been very tough on the mistakes we made here, the mistakes in Frankfurt and Brussels contributed handsomely to the difficulties. The loss of the exchange rate----

Chairman: Sorry, Senator, can you ask a question please?

Senator Sean D. Barrett: The loss of the interest rate, weak fiscal federalism, no bank regulation----

Chairman: Sorry, Senator, excuse me----

Senator Sean D. Barrett: ---no controls over capital flow, no exit mechanism - these are still a problem.

Chairman: Before Mr. Regling responds to that, Senator, please, when I make an intervention, you stop speaking. You cannot make a suggestion as to what was happening in Frankfurt by your judgement, otherwise this is not an inquiry, it is just a regular meeting of the committee. If you want to put the question to Mr. Regling whether there were mistakes made in Frankfurt, off you go, but please do not prejudge a question of implied value judgment with your statement, and certainly stop speaking when I make an intervention.

Mr. Klaus Regling: As I said before, in my view, and this is I think reflected in the report, all these elements contributed. This includes the European element and we wrote about that in the report. At the beginning of monetary union this move to permanently low interest rates meant a monetary push. We knew about it but we did not anticipate the full extent of the problems. We were in favour in the EU as a whole of more financial market integration but we underestimated the consequences because it could mean - as we see in Ireland and some other countries - that it allowed banks to access funding from abroad and fuel the bubble. There was nobody who told the national supervisors to do something against that. All that has been changed, but these are indeed problems that came from the European level and they added to the problems that came from the global level and the home-made failures in governance in many areas.

Deputy Joe Higgins: What categories of people did Mr. Regling speak to in the preparation of his report?

Mr. Klaus Regling: I think in our preface we say that we talked to many officials and private sector representatives with whom we met in Ireland and abroad. We met with former bankers, central bankers, consumer representatives, Government officials, journalists, politicians, financial regulators, trade union representatives, and members of the academic community. Outside Ireland we met officials at the Bank for International Settlements, the ECB, the European Commission and the IMF, so it was fairly widespread. We did not give any names in the report but we talked with about 100 people.

Deputy Joe Higgins: Could I put it to Mr. Regling that it was widespread in a sense, but it really related to an elite and largely to the establishment? Would he agree that perhaps when he says property acquisition as a topic was almost a national obsession in Ireland, and that it was hard to overstate the impact of this cultural attitude, this was perhaps the case among those people to whom he spoke, but the big majority of ordinary people in this country were not involved in property speculation. By way of background, this is a particularly sensitive issue here because some of those who have pushed subsequent austerity justify it on the basis that "we all partied". In reality most people did not, they were the victims.

Mr. Klaus Regling: This opens a wide field. Of course, we talked mainly to people who played a role and where we thought they could help us understand how the bubble developed and what went wrong. In a sense many of them were decision makers, but we also talked to academics, trade union people and journalists, but we did not talk to people in the streets, that is also correct to say, because we did not have the time to do that. I would not call it speculation when people bought apartments and houses, because they did it given their belief that prices would only go up, it would be a good investment but would not be wrong, and they wanted to already buy apartments for their children early. As we heard as an example, people bought apartments for their children who were still in school because they thought once they got out of school, university and start a job they would not be able to afford a house. That is why we use the word "obsession" or almost obsession, which goes beyond what I see in some other countries. I would not call it speculation.

That I have a different view of austerity policies Deputy Higgins probably knows, so I will not get into that now.

Deputy Joe Higgins: In Mr. Regling's report under "areas for investigation" and "policy lessons", can I ask in particular regarding speculation in building land and property, are there lessons in that regard that should find their way into policy changes? By way of background, I refer to the fact that in Europe, the component price of a home that is caused by the land or site value is about 15%, but in Ireland in the top of the bubble the price of the land reflected itself in about 50% of the price of an ordinary home. An expert here, P.J. Drudy, writing in the *Journal of the Statistical and Social Inquiry Society of Ireland*, 2007, said "there is evidence to suggest that land suitable for housing in some parts of the country, and especially in the Dublin area, is controlled by a relatively small number of landowners and developers." Does Mr. Regling think it would be appropriate that there should be, for example, control of profiteering in building land, or in the subsequent housing, etc., that is built on building land? Should that not be a policy change as well as some of the others he suggests?

Mr. Klaus Regling: This goes beyond our report. We did not get into that. I think the share of the price of the land going up in a bubble is quite normal, a common phenomenon. These numbers the Deputy quotes I cannot confirm and I do not know what is a normal bubble - to the extent one can talk about a normal bubble. The phenomenon I think is quite usual and one will find it in other countries.

What to do - I am not an expert, we did not get into that and it is not my expertise. I think transparency is always good. The tax system can also play a role - property taxes can play a role, but I think the committee has other experts who will come here who know more about that.

Deputy Joe Higgins: The point is that a home is a social need and those who profiteer are allowed to do so. That has been the situation in this country.

In page 45 Mr. Regling says, "it appears particularly surprising that there was not a stronger reaction within the banks themselves and among supervisors to lending trends that saw progressive build-up of concentrated loan exposures to and within the commercial property sector." Indeed I think he would add the housing sector as well. Was it the case in reality that the property speculation goose, so to speak, was delivering golden eggs by the bagful for the bankers, bondholders and investors, and those who were benefiting simply wanted the good times to continue? Perhaps that then worked its way through to the regulators and even the establishment politicians? They were all drinking in the same well of free-market capitalism so let them at it. Would that be fair to say?

Chairman: I will have to push the Deputy to the question.

Mr. Klaus Regling: We talked about bonuses, so obviously the system was in place that people benefited from increasing loans. On how far spread this was, the Deputy's implications are very political. We did not get into that. However, certainly some people benefited a lot from these developments and it was, let me repeat, against a background of everything going well, the standard of living going up for a large part of the population and GDP *per capita* growing strongly. We know today it was growing too strongly and that it was not sustainable. Everybody benefited, some more than others, but a large part of the population also, and people thought these good times would never end. Again, this was not an Irish phenomenon. This was the same in the United States and many other countries.

Chairman: To wrap up, I wish to touch on three things. One of the items is what Deputy Higgins was just indicating to Mr. Regling. On the issue of regulation, Mr. Regling used the term "light touch" earlier. Was light touch regulation, in his opinion, a result of policy or a result of pressure coming from the financial institutions? Which was the main driver of light touch regulation?

Mr. Klaus Regling: That financial institutions prefer light touch supervision is understandable. That is not surprising at all to me and this was also what we saw in all the other countries, in particular in the United States. The financial sector was happy with light touch regulation. So, no surprise here. What is surprising is that the policy world - the regulators, supervisors, central banks, policy-makers, and a large part of the academic world - believed for a very long time that this was the best possible approach. We saw the consequences. Let me quote Mr. Greenspan again. I think, on this occasion, it is very instructive to quote him. It was he who promoted this for a long time. He said it was a mistake.

Chairman: There are two other matters. In and running up to the conclusion of Mr. Regling's report, he states that there were two groups of factors that caused the crisis in Ireland. There were the global factors which were external factors and there were the home-made factors. Which was more decisive in contributing to the Irish banking crisis and financial collapse: the international factors or the home-grown domestic factors?

Mr. Klaus Regling: We had a similar question before, and I cannot say. What I would like to emphasise is that because these different factors came at the same time, that is the explanation for why it became so bad. If only one of the factors had been at play and the other not, then the crisis would have been much shallower.

Chairman: Would there have been a crisis in Ireland regardless of what was happening outside the country?

Mr. Klaus Regling: Yes, but it would have been less serious.

Chairman: On the home-made factors, Mr. Regling spoke about the pro-cyclical fiscal policy, which was the Government incentivising continuous spend, particularly in areas of property and so forth, weak governance and risk management within the banks, weak regulation and supervision of the banks by the Irish authorities, and the absence of forceful warnings regarding financial stability from the Central Bank. Mr. Regling also mentioned fiscal policy being that driven by Government, the governance of the Central Bank and other matters. In his judgement, having completed a report and upon review, how would he rank those factors in order of significance?

Mr. Klaus Regling: I do not want to rank them. They all contributed. If one of them had not been there, the crisis would have been a little bit less serious but there would have been a problem in any case. It is good the Chair asked the question again, because that was the main conclusion of our report. There were so many factors coming from the different sources - globally, European, national - and they all happened at the same time. That is why the crisis became so serious.

Chairman: My final question to Mr. Regling in regard to the committee and the work we are doing is how the eurozone members collectively and Ireland in particular can work to ensure that the risk of a similar banking crisis occurring in the future is mitigated or prevented from happening again.

Mr. Klaus Regling: Ireland and the euro area as a whole have already done a lot by deciding on new policy co-ordination mechanisms. We have now - I mentioned it earlier - the so-called excessive imbalance procedures. This looks at macroeconomic imbalances that can lead to a crisis like excessive divergence in competitiveness, current account imbalances and credit bubbles. All this is now done in a systematic way. It did not exist before the crisis. We always had a Stability and Growth Pact but not these other elements. The Stability and Growth Pact has been strengthened. There is less room for political interference now. The Commission proposals will normally become European law. We have done things on banking union, including transferring the supervision of important systemic banks to the single supervisory mechanism, SSM. That is important. We have the European financial stability facility, EFSF, and as a permanent crisis mechanism, the European Stability Mechanism, ESM, which did not exist before the crisis. There are many different elements where we have tried to draw the conclusion.

Let me mention also the European Systemic Risk Board, ESRB, which is not well known by the broader public. It is a very important innovation because it has this mandate of looking at macro-prudential risks. No one did that at the European level before 2008 and, let me say again, the same in the US and the UK. So, not only a European phenomenon. One clear lesson of the crisis is that these macro-prudential aspects can become very important. Supervisors in the past only looked at the micro aspect. They went into a bank - maybe not assertively enough - and looked at the loan book, loan by loan, and decided whether it was a good loan or a bad loan, whether the provisions were enough. However, there was no one to add it all up, which is the macro-prudential side, to come to a judgement on whether, overall, from a macroeconomic perspective, what banks were doing in a country was excessive or not. So, we have learned lessons in many different areas here in Ireland, but also in the euro area as a whole.

Chairman: I thank Mr. Regling again on behalf of the committee for his participation today and his engagement with the committee. It has been a very informative and valuable meeting in understanding the factors leading to the banking crisis in Ireland. Once again, we extend our sympathies to the family of Mr. Watson on his recent passing. I propose we suspend until 11.45 a.m., at which time we will resume with the next session of the meeting when we will be dealing with Professor Lane.

Sitting suspended at 11.30 a.m. and resumed at 11.45 a.m.

Professor Philip Lane

Chairman: The Joint Committee of Inquiry into the Banking Crisis is resuming in public session. Next on the agenda is our discussion with Professor Philip Lane from Trinity College Dublin. Our guest is a professor of international macroeconomics and director of the Institute of International Integration Studies at Trinity. He received a doctorate in economics from Harvard University in 1995 and was an assistant professor of economics and international affairs at Colombia University between 1995 and 1997 before moving to Trinity College in that year. He is a research fellow of the Centre of Economic Policy Research and has been a visiting scholar at the International Monetary Fund and the Federal Reserve Bank in New York, and a consultant to the European Commission.

His research interests include international macro-economics, economic growth, European monetary union and Irish economic performance. He is a managing editor of the *Economic and Social Review* and is also on the editorial boards of the *Journal of the European Economic*