Redefining the Role of the State

Joseph Stiglitz on building a 'post-Washington consensus'

An interview with introduction by Brian Snowdon

> 'Economic ideas—knowledge about economics—have had a profound effect on the lives of billions of people, making it absolutely essential that we do our best to try and understand the *scientific* basis of our theories and evidence…In practice, however, there are often large differences in the understanding of or about economic issues. The purpose of economic science is to narrow these differences by subjecting the positions and beliefs to rigorous analysis, statistical tests, and vigorous debate'.
>
> (Joseph Stiglitz, 1998a)

Introduction

Joseph Stiglitz is a remarkably productive economist and is internationally recognised as one of the world's leading thinkers. To date, in his 35-year career as a professional economist (1966–2001), Professor Stiglitz has published well over three hundred papers in academic journals, conference proceedings and edited volumes. He is also the author and editor of numerous books. In 1966, having completed his PhD at MIT, he embarked on an academic career during which he has taught and conducted research at many of the world's most prestigious universities including MIT, Yale, Oxford, Princeton and Stanford. In 1979 he was awarded the prestigious John Bates Clark Medal from the American Economic Association, an award given to the most distinguished economist under the age of forty. From 1993–97 Professor Stiglitz was a member of the US President's Council of Economic Advisors, becoming Chair of the CEA in June 1995. From February 1997 until his

Joseph Stiglitz is currently (since July 2001) Professor of Economics, Business and International Affairs at Columbia University, New York. Brian Snowdon is Principal Lecturer in Economics at the University of Northumbria, Newcastle upon Tyne, UK.

controversial resignation in November 1999, he was Senior Vice President and Chief Economist at the World Bank.

Equally impressive as the sheer volume of his publications is the range of important issues that have captured his interest over the years. He is best known for his pioneering work on the impact of costly and imperfect information on the functioning of markets and has applied this insight to a wide range of issues (Grossman and Stiglitz, 1976; Stiglitz, 1985a, 1993). In doing so he has made significant theoretical and applied contributions to the economics of uncertainty, portfolio analysis, corporate finance, risk and agriculture, the theory of taxation and public expenditure, the distribution of income and wealth, growth and capital theory, natural resource economics, development economics, trade theory, macroeconomics, monetary economics, the theory of market structure, welfare economics, the economics of socialism and comparative economic systems. Indeed there seem to be few areas where Professor Stiglitz has not made important contributions. His impressive research programme places him among the world's elite of theoretical economists, and his work can be viewed as a comprehensive critique of the Arrow-Debreu (1954) neoclassical model. For Stiglitz, this 'competitive paradigm' is not a sound or reliable basis on which to formulate policy advice in the real world. "Economic policy advice extracted from realistic models is likely to be far more valuable than advice divined from elegant but Panglossian models of perfect information, unbounded rationality, and truthful behaviour" (Stiglitz, 1999a). During the last twenty-five years Stiglitz has been prominent in developing the 'information—theoretic' approach to economic analysis. This 'information paradigm' has provided important insights into a whole range of important areas including the analysis of economic development, firms, financial markets, the design of incentives and macroeconomics (Stiglitz, 1994a; Hoff and Stiglitz, 2001). By developing and extending the theory of market failure to take into account the impact of imperfect information and incomplete markets, Stiglitz has advanced economists' understanding of how to improve the efficiency and effectiveness of state interventions designed to improve the functioning of market-based economies. In particular his research provides intellectual foundations for those who see an important role for government as a *strategic complement* to markets. For markets to flourish the government needs to be deeply involved in creating the necessary conditions for capitalism to thrive (World Bank, 1997).

In the interview that follows, Professor Stiglitz gives his views on a number of important contemporary issues. First, I will provide a brief background discussion to set the interview in context. The views and interpretations expressed in this section are those of the author.

The 'Washington consensus'

The phrase 'Washington consensus' was originally coined by John Williamson, who in 1990 used it as a descriptive term to refer to 'the lowest common denominator of policy advice being addressed by the Washington-based institutions to Latin American countries as of 1989' (Williamson, 2000). So for Williamson the consensus was geographically and historically specific. Nevertheless, compared to the 1950–80 period, the set of ten policy prescriptions Williamson used to represent the Washington consensus marked a paradigm shift in thinking on economic development and captured the 'conventional wisdom of the day among economically influential bits of Washington, meaning the US government and the international financial institutions', namely the IMF and World Bank (Williamson, 1993). For Williamson, the Washington consensus captured 'the common core of wisdom embraced by all serious economists' and had emerged from a process of intellectual convergence arising from economists' theoretical and empirical research. For example, during the 1970s and 1980s the research of Anne Krueger (1990, 1993, 1997) and others had legitimately identified a large number of 'government failures' resulting from the application of policies based on early post-war development thinking. This combination of ideas, institutions and economic and political history led to excessively *dirigiste* development strategies where the role of the state could not match its capability and as a result the 'core activities' or 'fundamentals' were neglected (World Bank, 1997). However, during the 1990s, Williamson's original conception of the 'Washington consensus' became distorted as it was popularised, and evolved 'to signify a set of 'neoliberal' policy prescriptions'. The Washington consensus quickly became associated with what George Soros (1998) has labelled 'market fundamentalism'. Crudely put, this interpretation reduces the Washington consensus to "let's bash the state, the markets will resolve everything" (Williamson, 2000). As Srinivasan (2000) observes, this distortion should be no surprise since the extremist opponents of free market capitalism 'view the US government and its 'lackeys'—the World Bank and IMF—as the chief advocates of free markets' and 'would have attacked anything called the Washington consensus'.

In Stiglitz's view, *all* versions of the Washington consensus, but especially the neo-liberal or market fundamentalist interpretation, are fundamentally flawed. Their policy prescriptions, concept of development and agenda for government all embrace far too narrow a perspective, which Stiglitz (1998b) summarises as 'liberalisation, stabilisation, and privatisation'. The clear need for reform did not imply or require a change to extreme neoliberal policies with a minimalist role for government. With respect to the modern role of government Stiglitz argues that the "ideological debates should be over; there should be agreement that while markets are at the centre of the economy, governments must play an important role. The issue is one of balance, and *where that balance is may depend on the country, the capacity of its government, the institutional development of its markets*. In other words, development advice should be adapted to the circumstances of the country" (Stiglitz, 1998b). Dani Rodrik has recently argued that "The idea of a mixed economy is possibly the most valuable heritage that the twentieth century bequeaths to the twenty-first in the realm of economic policy", and that "successful development requires markets underpinned by solid public institutions" (Rodrik, 2000).

Recent debates

In recent years Stiglitz has been heavily involved in controversial debates relating to the East Asian economic crisis, Russia's transition to a market economy, globalisation, economic development, and redefining the modern role of the state. His outspoken views challenging the Washington consensus have frequently involved extensive criticism of the IMF and US Treasury Department, institutions that continue to play a pivotal role in influencing and managing the global economy. Unfortunately, in Stiglitz's opinion, in many cases, the "smart—even brilliant people" guiding these institutions "were not using smart economics", their models were "out of date" and "out of tune with reality". In the case of the East Asian crisis Stiglitz attributes policy failure in large part to a culture of secrecy and lack of dialogue which surrounds international economic policy-making.

> Smart people are more likely to do stupid things when they close themselves off from outside criticism and advice. If there's one thing I've learned in government, it's that openness is most essential in those realms where expertise seems to matter most.
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> (Stiglitz, 2000a)

Encouraged by the IMF, many developing countries initiated policies of financial liberalisation. In doing so, they rendered themselves vulnerable to currency speculators if conditions of uncertainty and financial instability emerged. When the East Asian currencies came under speculative attack in 1997, the US Treasury and IMF recommended to these countries that they raise interest rates, cut government expenditure and raise taxes. Indeed this deflationary package was a condition for IMF financial support. This response of the IMF to the East Asian economic crisis "appalled" Stiglitz and he began "lobbying to change the policy". Although Stiglitz was able to convince many economists at the World Bank that the IMF strategy was mistaken, he found that "changing minds at the IMF was virtually impossible" (Stiglitz, 2000a). However, many of Stiglitz's criticisms of Washington's response to this crisis are shared by other high-profile economists such as Paul Krugman (1998), Martin Feldstein (1998), James Tobin and Gustav Ranis (2000).

In the debate over Russia's transition to a market economy, the US Treasury Department and IMF were more influenced in their policy recommendations by the shock therapists than those economists such as Stiglitz who emphasised a piecemeal, incremental and adaptive approach to transition. This 'gradualist' approach emphasises the importance of carefully establishing the necessary institutional infrastructure as a key prerequisite if the launch of a market economy is to have lasting success. In order to work effectively, in addition to private property a market economy requires legal and financial institutions, regulatory frameworks, an independent judicial system capable of enforcing laws which establish a secure economic environment, a capable, effective system of government, and political stability. "Transforming to a market economy does not entail a withering away of the state but a redefinition of its role" (Stiglitz, 1994a).

Moreover, a country's institutions need to be adapted to the circumstances of the country, not "grafted wholesale from one country onto another" (Stiglitz, 1999b). Because "history matters", the "legacy of the past" makes the establishment of a market economy "extremely difficult". This is an important lesson from the transition experiences of the 1990s.

On globalisation Stiglitz is a cautious optimist. Although he has frequently been a leading critic of the world's most powerful global financial institutions, Stiglitz firmly believes in the importance of trade liberalisation, openness and increasing economic integration as a *potential* means of promoting economic development. However, for the benefits of globalisation to be shared by all, an appropriate international financial architecture needs to be in place and this architecture "must be designed to work not just in the presence of perfect economic management, but with the kind of fallible governments and public officials that in fact occur in democratic societies" (Stiglitz, 2000b). When it comes to capital market liberalisation Stiglitz is a firm advocate of encouraging foreign direct investment flows which not only bring capital to developing countries but also help to close the 'ideas gap' by exposing developing countries to new technology, knowledge and training. But he remains a leading critic of full capital market liberalisation involving short term capital flows which in his view bring few benefits but almost certainly guarantee greater instability by increasing developing countries' vulnerability to shocks, short-run oscillations in market sentiment and capital flight (see also Bhagwati, 1998a).

The role of government

What should be the role of government in an economy? This important question has been debated throughout history and permeates all important public policy issues. The current borders of the state have been mainly determined by historical events combined with developments in economic analysis. The classical economists, following the lead given by Adam Smith in his *Wealth of Nations* (1776), championed the case for free markets combined with a minimalist but essential role for government. For the classical economists, the role of the state would be mainly confined to the provision of essential public goods such as national defence, law and order, defining and enforcing property rights and contract enforcement. But Smith did not support a minimalist state across the board. He also accepted that the state has an important role to play in the provision of education and "certain public works and institutions", including a stable monetary framework. "Capitalism and markets do not just happen" (Goldsmith, 1995). For individuals living in a typical rich OECD economy in the twenty-first century it is easy to take most of these institutions for granted because they have evolved over such a long historical period. But the 'trials of transition' witnessed in the former communist economies remind us just how difficult it is to make market economies operate effectively without having the necessary institutional infrastructure in place (World Bank, 1997).

During the nineteenth century the economic role of government, as measured by government expenditure as a percentage of GDP, was around 10%. By 1996 the government expenditure:GDP ratio had risen to an average of 45% in developed OECD countries (see Middleton, 1996; Tanzi and Schuknecht, 2000). This expanding role of government activity reflects the influence of several factors, in particular the impact of two world wars, the Great Depression and consequent Keynesian revolution, the influence of the Soviet model of development, rising military expenditures associated with global ideological competition between the USA and USSR, the influence of socialist/humanitarian thinking and a growing concern for greater equity via income redistribution, and the rise of welfare state capitalism. Also important has been the general recognition by economists of a wider range of market failures than those initially identified by Adam Smith, particularly widespread distortions created by externalities.

Over the past twenty-five years, Stiglitz's research programme has been very influential in adding imperfect and costly information and incomplete markets to the list of factors which can cause distortions and lead to the serious malfunctioning of market economies. It is in this area of economic analysis that we find a unifying theme to Stiglitz's most influential contributions. In helping to analyse and clarify the economic impact of incomplete information and uncertainty on the functioning of markets, Stiglitz has demonstrated the limitations of conventional neoclassical theory as a framework for policy analysis. He has also highlighted the importance of taking into account problems created by moral hazard and asymmetric information. This research agenda has also led to the creation of more coherent microeconomic foundations for 'new Keynesian' economics (Stiglitz, 1992; Snowdon, Vane and Wynarczyk, 1994). The macroeconomic models developed by Stiglitz differ markedly from the market clearing theories of the New Classical school which during the 1970s and 1980s were very influential in undermining faith in a discretionary role for government in maintaining macroeconomic stability. In the spirit of Keynes, Stiglitz has made major contributions to improving economists' understanding of the major links between financial markets and the real economy (Greenwald and Stiglitz, 1987, 1993a, 1993b). And, despite the many onslaughts on Keynesian economics and various forms of government intervention during the 1970s and 1980s, Stiglitz has maintained his faith in the idea that the presence of market failures provide an important basis on which to build a framework which can help economists map out the economic borders of the modern state (Helm, 1989; Stiglitz, 1989, 1998c). He also recognises that the dynamic influences from evolving technology and political change will require government to "constantly re-evaluate what it does and how it does it" (Stiglitz, 1997a).

While the 1950s and 1960s represent the high water mark of economists' faith in the capacity of governments to correct market failures, the 1970s and 1980s witnessed increasing scepticism about the expanding role for government and saw a return of economists' faith in markets. Among economists there was a growing recognition of various forms of government failure. As Tanzi (1997) has commented, "the state was doing more and more but doing it less well". Although, in retrospect, it took far too long for the shortcomings of central planning to be recognised, a very important lesson from twentieth century economic history is the catastrophic failure of Soviet-style state-led industrialisation as a means of organising and co-ordinating economic activity on a sustainable basis (Sachs, 1999). For Stiglitz, "centrally planned socialism has been convincingly discredited and is no longer viewed as a viable option. Variants of the market system now provide armatures for development throughout the world" (Yusuf and Stiglitz, 2001). To their great credit, during the famous inter-war debates on 'socialist calculation', Ludwig von Mises (1920) and Friedrich von Hayek (1935) predicted a chaotic finale for the Soviet economic system (see Stiglitz, 1994a; Caldwell, 1997). From the 1970s onwards, the debate on market failure versus government failure gathered momentum and became a key feature of the development economics literature (see Bardhan *et al*, 1990). Many economists, influenced by the critiques of figures such as Peter Bauer, Milton Friedman, James

Buchanan, Friedrich von Hayek, Robert Lucas and Anne Krueger, began to accept that the state was trying to do too much. In many countries this caused deleterious effects on the efficient functioning of markets, economic growth and stability (Green, 1987; Roper and Snowdon, 1987; Lal, 1993; Krueger, 1993). The idea of government acting as a 'benevolent social guardian' and the dubious assumption that planning agencies were populated by 'selfless bureaucrats' had been severely eroded by experience. Excessively *dirigiste* strategies created a multitude of regulations, red tape, rent-seeking behaviour, corruption and autarchic inefficiency. As a result, all too often the private sector in developing countries was suffocated under an avalanche of controls. With good reason, by the end of the 1980s a consensus of economists had accepted the limitations of development strategies involving *excessive* state interference. This marked the demise of development strategies based on what Waelbroeck (1998) calls the Nehru-inspired 'Indian Congress Consensus'. The pendulum had swung from faith in what government intervention could achieve to focussing on pervasive government failure. This change was an important ingredient in the evolution of the Washington consensus (Stiglitz, 1997a). However, for Stiglitz, the problem with the Washington consensus is that "market failures are too narrowly defined" and its view of the goals of development is far too restricted, both in its instruments and objectives. For Stiglitz, development involves the transformation of societies, including the way people think. A post-Washington consensus view of the goals of development will go beyond real increases in *per capita* GDP and encompass objectives which include 'sustainable development', 'equitable development' and 'democratic development'. (Stiglitz, 1998d; World Bank, 2000).

Towards a 'post-Washington consensus'

When Stiglitz joined the World Bank in February 1997 he set himself three main objectives (see Brauer, 2000), namely:

1. To change thinking on economic development with respect to objectives, widening them from just growth in GDP per capita to a more broad-based democratic, equitable and sustained development.

2. To change thinking about economics. This involves taking a critical view of the Washington consensus approach and giving much greater emphasis to the importance of institutional infrastructure when analysing problems relating to economic development and economies in transition.
3. To change the process of development dialogue away from one reflecting the 'paternalistic' attitude of the North. For Stiglitz "the role of the economist is not to tell governments what to do but to lay out the consequences of various courses of action and allow the country to make the decision".

To a large extent Stiglitz has succeeded in his stated objectives. In his research and work at the World Bank, Stiglitz has highlighted the importance of market failure, macroeconomic stabilisation, the important (but focussed) role that governments must play in a predominantly market-based economy, the importance of promoting economic opportunities for the poor via strategies of equitable growth, and the key role of education and knowledge in advancing economic and social well-being. He has also highlighted the crucial importance of promoting market-enhancing institutions, democracy and good governance in order to achieve long-run growth and development in the new century. The influence of Stiglitz's ideas is clearly reflected in the content of recent *World Development Reports*. In 1997 the World Bank published its annual *Development Report* entitled "The State in a Changing World". As Stiglitz (1997a) has noted, this report "marked a milestone in the World Bank's policy paradigm". The *Report*, which Stiglitz helped to produce, recognises that "good government is not a luxury but is a vital necessity for development". In contrast to the Washington consensus view of the state, the 1997 *Report* concentrates on how to make the state more effective in performing well its core activities, as well as setting out an agenda for change in the twenty-first century. Failure to give sufficient attention to the 'core activities' of the state had a negative impact on the efficient workings of markets, which depend "greatly on how well the state performs its core activities".

Subsequent *World Development Reports* have addressed in depth many of the other important issues identified by Stiglitz by examining: *Knowledge for Development* (1998/9), *Entering the 21st Century* (1999/2000), *Attacking*

Poverty (2000/1), *Institutions for Markets* (2001/2002), and *Sustainable Development with a Dynamic Economy: Growth, Poverty, Social Cohesion, and the Environment* (2002/2003, forthcoming).

For Stiglitz perhaps the key question for economists and other social scientists to address is, 'Are there ways of designing governmental institutions which enhance the likelihood of, if not ensuring that, public interventions are welfare enhancing?'. To this end, Professor Stiglitz plans to locate his new 'Initiative for Policy Dialogue' at the School of International and Public Affairs at Columbia University. The Initiative for Policy Dialogue aims to provide an alternative to the IMF and World Bank for countries in need of sound economic policy advice.[1]

Helping to make government more effective and democratic is a crucial aspect of Stiglitz's 'post-Washington consensus' research agenda (Stiglitz, 1998d). By promoting an open debate on this crucial issue, Stiglitz is encouraging economists and other social scientists to better identify where the border lies between 'welfare enhancing' and 'welfare reducing' government intervention. Along similar lines, but in a very different age, Keynes (1926) argued,

> Perhaps the chief task of economists at this hour is to distinguish afresh the Agenda of Government from the Non-Agenda; and the companion task of politics is to devise forms of government within a democracy which shall be capable of accomplishing the Agenda…The important thing for Government is not to do things which individuals are doing already, and to do them a little better or a little worse: but to do those things which at present are not done at all.

In the remainder of this article I discuss with Professor Stiglitz several of the issues identified above. I also provide extensive referencing as a guide for the interested reader. I interviewed Professor Stiglitz[2] at Trinity College, Cambridge, UK, on the 24th January, 2001.

Background information

Given the enormous flow of research and publications that you produce you must enjoy being an economist. What inspired you to become an economist?

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[1] See http://www.columbia.edu/cu/economics/stiglitz.html

[2] This interview is one in a series of ten conducted with eminent economists to be published in a forthcoming book, *Conversations on Growth, Stability and Trade*, (Snowdon, 2002).

I began my undergraduate education as a major in physics and was very attracted to mathematics. But I was also very interested in social problems and soon found out that economics enabled me to combine my interests so that I could use the mathematics to analyse important social problems *[Stiglitz, 1994b]*. That's what got me hooked on economics.

In a recent interview, Alan Blinder explained the reasons for his continuing faith in Keynesian economics [Snowdon, 2001]. *You are known as a new Keynesian economist, having contributed many papers to that literature* [e.g. Shapiro and Stiglitz, 1984; Stiglitz, 1984, 1992; Greenwald and Stiglitz, 1987, 1993a, 1993b]. *Were there any significant influences in your background that attracted you to Keynesian ideas?*

There are many things in my background which have influenced me in that direction. I grew up in Gary, Indiana, which is a steel town. Living there you could not grow up without being aware of the impact of cyclical fluctuations and that there were large numbers of people facing high levels of poverty. I could not walk away and escape from the social problems which were prevalent on my own doorstep. There were also family influences. My family has a strong liberal democratic tradition. There was an interest in competition policy and my father even filed a suite on anti-trust issues. At Amherst, where I was an undergraduate, there was a clear Keynesian tradition and that obviously influenced me.

The 'Washington consensus'

You have been an outspoken critic of the 'Washington consensus' for several years and this has involved a critique of IMF and US Treasury policies as well as the World Bank. You have also condemned the "arrogance" of US Treasury economists who you say do not listen to alternative views [Stiglitz, 2000a]. *Jagdish Bhagwati* [1998b] *believes that it is the duty of social scientists to be a "public nuisance" and for them to "propose policies and advance agendas that reflection and analysis lead one to believe to be good and beneficial". Bhagwati wants good economists to "get down into the trenches" of public policy. Recently you seem to have gone several steps further and led a charge and gone over the top* [laughter]. *Did you resign from the World Bank in November 1999 so that you could speak more freely and advocate policies on matters that obviously deeply concern you?*

That was certainly one of the reasons. I obviously had less freedom to express myself and criticise the policies advocated by the IMF in Asia given my institutional responsibilities at the World Bank. It was also the case that, in my role as Senior Vice President, the bureaucratic administrative burdens at the World Bank took up a lot of my time. These burdens were obviously not as intellectually challenging as other aspects of the job, which I found very exciting. But I had always had the intention of eventually returning to academia to continue with my research.

Although your research over the years has covered just about every important field in economics, you are probably best known for analysing the economic consequences of incomplete information and uncertainty on the welfare properties of markets [Stiglitz, 1985a, 1993, 1994a]. *The 'Washington consensus', which you summarise as 'liberalisation, stabilisation and privatisation', championed and promoted an increased reliance on market solutions to development problems, rather than complementing the invisible hand of markets with the visible hand of government. The Washington consensus also represented a reaction to the earlier overemphasis by many developing countries on import substitution policies and state-led industrialisation* [Krueger, 1997]. *Faith in this neo-liberal vision, however, was severely jolted by the East Asian crisis. How has your theoretical research over the years, and your understanding of imperfect markets and market failure, contributed to your critique of the Washington consensus?*

You are right to say that much of the Washington consensus was a reaction to excessive intervention by government, very often wrong forms of intervention. During the 1950s and 1960s some economists sought a solution to the development problem in terms of utilising dynamic programming models, comprehensive development planning and inward-oriented import substitution strategies. During the 1970s and 1980s governments gradually became to be regarded as part of the problem, rather than a solution. So the intellectual foundations of the Washington consensus, or perhaps I should say the ideological foundations, were based on the premise that competitive free markets are the most effective way of promoting growth and efficiency, and therefore living standards. The consensus, in other words, was based on doctrines and ideology that completely ignored the presence of market failures. While I see those market failures as being extremely important even in rich developed countries, they are clearly far more important in poor developing countries where markets do not work well in a whole variety of ways. There are missing markets and imperfections of information, both of which are first order concerns. The fundamental theorems of Arrow-Debreu *[1954]* in welfare economics make explicit the precise conditions necessary for markets to work efficiently. Much of the work that I had done in the period from the late 1960s through the 1980s highlights the problems that arise for efficiency when there are incomplete risk markets, imperfect information and so on. For example, when there is imperfect information, market equilibrium can occur without demand being equal to supply and this insight has proved to be very useful in the analysis of credit and labour markets *[Stiglitz and Weiss, 1981; Shapiro and Stiglitz, 1984; Stiglitz, 1987]*. In another paper co-authored with David Newbery *[1984]* we demonstrated that in the presence of incomplete risk markets, trade liberalisation could have an adverse effect on welfare. Market failures relating to moral hazard and adverse selection problems are also endemic in financial markets, and much of my research has concentrated on the consequences of these imperfections on the efficient functioning of the financial sector and the economy *[Stiglitz, 1994c]*. In my research back in the 1980s I also highlighted problems arising with respect to corporate governance *[Stiglitz, 1985b]* and with David Sappington wrote about the problem of privatisation from an information-theoretic perspective *[Sappington and Stiglitz, 1987]*. Our 'fundamental privatisation theorem' shows the restrictive conditions necessary if a strategy of privatising state enterprises is to succeed in achieving efficient and equitable outcomes. These papers highlighted some of the problems that were associated with privatisation and this was before all the Eastern European reform issues became popular topics of discussion and controversy. Then at the very beginning of the transition period I wrote *Whither Socialism [1994a]*. In that book, based partly on earlier work, I also tried to highlight some of the problems associated with privatisation and corporate governance. In the absence of an adequate institutional infrastructure, privatisation policies run into serious problems, as we have seen in Russia. The contrast between China's impressive economic performance and Russia's trials of transition is striking and demonstrates important lessons about the sequencing of reforms and the dangers of privatising in a non-competitive environment. As things have turned out over the last decade in the former Soviet Union and Eastern Europe, many of the predictions that I had put forward have actually come true in terms of the problems that these countries encountered in the process of liberalisation and privatisation *[Stiglitz, 1999c]*.

Given what you have just said, do you think that students of economics should study economic history? For example, perhaps those recommending policies for transition would have been better placed if they had first studied the history of Russia and it's institutions?

Yes, very much so. The legacy of Russia's past has had an important influence on the course of events there. As you say, this gap in the historical and institutional knowledge of policymakers comes out clearly in the discussion of the transition from a communist centrally-directed system to a capitalist market system. There were two schools of thought on how Russia and the other transition economies should proceed. One group, consisting mostly of macroeconomists with little appreciation of institutional factors, focussed on the need for shock therapy. The other group favoured a more gradualist approach to change and discussed the importance of the institutional infrastructure. What was very interesting was that those who were recommending the paramount importance of things like corporate governance, competition policy, legal frameworks and law and order, included people who were steeped in a knowledge of economic history and the institutional background of the transition economies. Those issues were simply dismissed by the shock therapists. The transition experience of Russia has shown that it takes much more than private property to make a market economy work well. To function effectively a market economy needs a whole range of supporting institutions, including competition and bankruptcy laws, regulatory frameworks and a credible legal system. Countries that lack the necessary legal and financial infrastructure will also find it very difficult to attract FDI. The experience of Russia during the last decade has taught us just how difficult it is to make a market economy work.

The East Asian miracle

In 1993 you were one of several economists who helped to produce the much-quoted World Bank study entitled The East Asian Miracle: Economic Growth and

Public Policy. *You also had a paper published in* The World Bank Research Observer *entitled "Some lessons from the East Asian miracle"* [Stiglitz, 1996]. *Therefore I am interested to hear what your reaction is to the paper published in 1994 by Paul Krugman entitled "The myth of Asia's miracle"?*

I think that Paul Krugman formulated the problem wrongly. In my 1996 paper I began with the observation that East Asia had succeeded in increasing real per capita incomes and reducing poverty at a faster pace and more significantly than anywhere else in the world, by large orders of magnitude. So that is what I refer to as the miracle in East Asia. The important questions are: what caused this to happen and why was East Asia's experience so different to that elsewhere in the developing world? In the end you can say much of what happened can be explained by conventional economic analysis and I think that this was the main thrust of Krugman's point. But that doesn't really address the issue that it was a phenomenal economic achievement. Nowhere else in the world have we seen such a performance. So he is right that much of it can be explained within a Solow growth accounting framework by high levels of savings and investment *[Solow, 1957]*. But surely the key question is why did they have such high levels of saving and investment? Was it because the government took actions that stimulated savings? Even with high levels of savings most countries in the world have not been able to invest as efficiently as these economies. Somehow the Asian Tigers were able to invest their resources well. How were they able to do that? How were they able to create the institutions that enabled that to happen? That they succeeded when many others failed is, to me, a miracle in some sense. Paul Krugman's point was that you could explain everything with the hypothesis that they saved a lot and they invested it well. But I still want to know why it did not happen anywhere else in the world. Why has it not happened in sub-Saharan Africa for example? The critical area where he exaggerated and was wrong is that he claimed that you could explain virtually all the increase in income by increases in factor inputs and therefore there was very little contribution from total factor productivity increases. So Krugman's definition of a miracle appears to identify that idea with increases in TFP that are above normal. Unfortunately the methodology for ascertaining estimates of TFP are very unreliable *[Stiroh, 2001]*. For example, Krugman's paper relied a lot on the previous research of Alwyn

Young *[1992, 1995]* which has subsequently been largely discredited *[Hsieh, 1999]*. The data he used are not reliable and the methodology of growth accounting is problematic. Because these countries had very high rates of capital accumulation, the weight that a researcher places on the share of capital is very important in defining how much of the growth can be explained by capital accumulation. Young put a lot of weight on the capital input, say fifty per cent. Now that is alright if the share of capital reflects marginal productivity theory as it would in competitive markets. But there is no reason to believe that wage determination in Singapore is determined competitively. We know a lot about the wage determination process in Singapore and it is not credible to claim that it can be described as a competitive process with wages reflecting marginal productivity. Others have also pointed out that with different ways of measuring human capital you can get very different results. So the bottom line on this is that Krugman and Young's almost entire focus on total factor productivity was wrong; and in any case the measurement problems are so severe that the whole methodology is just not very reliable. If you actually visit these countries you cannot help but see with your own eyes that something dramatic has happened to the organisation of these societies. The gap in knowledge between these countries and more developed countries has been greatly reduced through the absorption of new ideas and technologies *[Stiglitz and Yusuf, 2001]*.

One of the reasons why it is so important to understand what happened in the Tiger economies is that hopefully we can find the recipe for successful growth and pass on this message to other less successful parts of the developing world. Recent papers by Easterly and Levine [1997], *Bloom and Sachs* [1998] *and Collier and Gunning* [1999] *have highlighted the current plight of sub-Saharan Africa, where progress on many fronts has been slow or virtually non-existent. What do you think are the key lessons that we can extract from the East Asian experience which will be of use to help the rest of the developing world?*

There are some important general lessons. Successful economic development involves accumulating physical and human capital, and closing the knowledge gap. The economic success of East Asia was built on effective and market-friendly government interventions. The key elements involved the promotion of high levels of domestic savings and investment, the efficient allocation of those investment funds, buoyant exports, sound macroeconomic management—including low inflation and responsible fiscal policies—and emphasis on the rapid spread and accumulation of human capital. In addition the history of East Asian development shows that if a country wants to grow it should close the knowledge-technology gap, and outward orientation and, in most cases, FDI seem to be an important mechanism for the transfer of technology and knowledge. FDI not only transfers capital but also transfers knowledge. Education is another crucial factor. For instance, if we look at the experience of South Korea, one aspect stands out relating to education. Not only did they gain a lot from putting resources into developing primary and secondary education, they also benefited from developing tertiary education, which helped to provide a supply of labour equipped with the engineering skills necessary for absorbing new technology and new ideas. This enabled South Korea to become a leader in microchip production. The old IMF-World Bank mantra was very much focussed on primary education but paid little attention to the role that education could play as part of the whole social transformation and the closure of the knowledge gap. However, translating all these messages and lessons into practical policies for sub-Saharan Africa with the aim of producing rapid development is not so easy *[Meier and Stiglitz, 2001]*.

The East Asian crisis

In the summer of 1997 we witnessed the beginning of the East Asian financial and economic crisis. There seem to be three kinds of explanation for this momentous economic event. First, some have emphasised the issue of 'crony capitalism'; second is the argument based on the influence of external shocks such as the appreciation of the East Asian currencies against the yen, the Japanese recession and the emergence of China in Far Eastern markets; finally, we have an explanation which focuses on the financial sector, capital market liberalisation and financial panic [see Bhagwati, 1998a; Nixon and Waters, 1999; Lim, 1999; Chang, 2000; Kaji, 2001]. *You have written extensively on this but, looking back, how do you sum up the origin of the crisis* [see Furman and Stiglitz, 1998; Stiglitz, 1999d, 2000b]*?*

I like to think about these things using the principle of Occam's razor. In other words, can we explain the crisis with a simple economic model without reference to anything else? I think you can. If you look around the world, there have been lots of crises. When Sweden, Norway and Finland had financial crises you did not hear anyone talking about crony capitalism. Neither was there any talk of crony capitalism during Britain's exchange rate mechanism crisis in September 1992. So if you want to understand the East Asian crisis you have to look for common themes and elements that occur in financial crises around the world. I believe that the crisis in Thailand can be explained very well with reference to capital market liberalisation leading to a real estate bubble. The bubble burst, as such bubbles inevitably do, and the Thai economy faced traumatic consequences. That kind of problem happens all over the world. It happened in California for example. So you do not have to talk about special influences that may or may not have made the situation a little bit worse. There is every reason to believe that the crisis would have occurred even if those other factors such as crony capitalism had been absent. In the case of South Korea you would identify premature capital market liberalisation associated with inadequate financial sector regulation leading to heavy short-term indebtedness as the main source of the crisis. So again the main issue to focus on is the financial sector. If you look around the affected countries it is pretty clear to me that financial sector liberalisation without the necessary regulations and supporting institutions was the fundamental cause. The speed that capital market liberalisation was forced on these countries meant that important institutions such as risk management structures were not put into place. Therefore, there were no effective systems in place in these countries to cope with the risks and that is undoubtedly the core of the problem *[World Bank, 2001]*.

Lawrence Summers [1999, 2000] *and Stanley Fischer* [Citrin and Fischer, 2000] *have drawn attention to the potential benefits of free capital flows for the developing countries. What might be called the Bhagwati-Stiglitz view is that unregulated free capital mobility represents a significant risk for developing countries and this proved to be the case in 1997–8 in East Asia* [Bhagwati, 1998a; Stiglitz, 2000b]. *Barry Eichengreen has called for the establishment of a 'New International Financial Architecture' in order to 'tame' capital flows* [Eichengreen, 1999, 2000; Snowdon, 2000]. *What needs to be put in place to maximise the potential benefits of capital mobility while minimising the obvious risks?*

First let me say that there is very little evidence confirming any significant benefits from short-term capital flows. On the other hand there is some evidence confirming the benefits of Foreign Direct Investment. The evidence also shows that liberalising capital markets is not necessary to encourage FDI flows to developing countries. The biggest recipient of FDI is China, which weathered the financial market storm very well because it had restrictions. So the Summers view that you need capital market liberalisation in order to attract FDI is just wrong. While a consensus of economists support trade liberalisation, there is no similar consensus about the advantages of liberalising the capital account. However, there is a consensus that capital account liberalisation will increase an economy's exposure to risk. One of the ironies in the East Asian crisis was that East Asia had been told that one of the main reasons for capital market liberalisation was to create more stability! These economies did not really need any outside capital given their high domestic savings rates of 30%–40%. In fact they were having trouble investing well the resources they already had. So what were these economies going to gain from liberalisation of their capital markets? The real argument may have been that liberalisation would create good business for Wall Street, the US Treasury's main client. I think opening up markets for Wall Street was the main agenda, not global economic stability. The argument relating to stability put forward by the advocates of liberalisation was that capital flows would be counter-cyclical. If domestic savings fell then capital would flow in from abroad. Anyone who had looked at the data beforehand knew that short-term capital flows are pro-cyclical and therefore exacerbate crises. This is exactly what we saw happening in the 1997 crisis. There is a whole history of econometric studies that show that capital market liberalisation is systematically associated with an increased risk of crises and not systematically associated with economic growth. For example, everybody today recognises that if you have more short-term indebtedness you have to have more foreign exchange reserves *[Stiglitz, 2000b]*. Suppose a firm within a poor African country borrows $100 million from an American bank at 20%. If the country is holding minimum prudential reserves then it has to add a corresponding amount to its reserves. Suppose it holds those reserves in US T-bills yielding 5%. In effect the US has loaned the developing country $100 million at 25%, and the developing country has loaned the US $100 million at 5%. That is bad for growth not good! Of course it is very good for the US and Wall Street. Now you understand why Lawrence Summers might advocate liberalisation.

In one of your newspaper comments you said that you were 'appalled' by the IMF-US Treasury response to the crisis, which was to push up interest rates in order to try and prevent further exchange rate depreciation [Stiglitz, 2000a]. *But isn't there a problem in letting an exchange rate depreciate in a country with a lot of dollar-denominated debt?*

There are two important points here. First, does raising interest rates stabilise the exchange rate? The IMF were using a very crude model which assumes that raising interest rates would make it more attractive to put money into a crisis-hit country. But people don't care just about the interest rate, they care about the expected return, which is the interest rate times the probability of being repaid. But default was uppermost on everybody's mind and that is why loans were not being renewed. The IMF pretended that their policies would have no impact on default probability. But if you raise interest rates to 40%, default probabilities go through the roof. As a result of IMF policies 75% of the firms in Indonesia were in financial distress and under risk of bankruptcy. Over 40% of the loan arrangements in Thailand were in distress. So IMF policies made the problem more severe and the result was that capital did not flow into the country, rather it flowed out and further weakened the exchange rate. It is often assumed that countries facing an exchange rate crisis face a trade-off between the adverse effects of allowing the exchange rate to depreciate and raising interest rates. But raising interest rates during East Asia's exchange rate crisis contributed to capital flight and there is no trade-off because the outflow of capital exacerbated the decline in the exchange rate. The policy of raising the interest rate turned out to be counterproductive. What is more, there are numerous historical examples to show that this kind of result is not uncommon. It does not happen all of the time because the circumstances of each country differ. But in the case of East Asia, raising interest rates was a disaster. Even many well-managed and prudent firms cannot survive such huge increases in interest rates. But even when there is a trade-off one has to look at the micro-economies to assess the adverse effects of depreciation versus interest rate increases. The latter may have far worse consequences than the former. If the IMF had just looked at the data they would have seen that this sort of outcome was a distinct possibility in East Asia. In Thailand, for example, who were the firms who were deeply indebted abroad and who were going to be badly hit by a devaluation? Two groups of firms held the vast proportion of foreign debt. One group consisted of real estate firms and the financial institutions that had loaned them money. With the breaking of the real estate bubble these firms were already dead and could not be deader (*laughter*). With 25% vacancy rates in their properties they could not be saved. So to maintain the exchange rate was irrelevant except if your primary purpose was making sure that you did better in getting creditors repaid. That was perhaps the hidden agenda. The other group of firms with large foreign exchange exposure were exporters. But exporters gained on their exports what they lost on their balance sheets so that the effect of the devaluation on them was relatively small or even possibly positive.

I have seen newspaper articles describing you as a 'maverick'. Is that how you see yourself on some of the issues which have received wide public attention in recent years, particularly on the furore following the East Asian crisis in 1997–98?

On most of the issues I have been involved with I think the views I have expressed are ones that would be shared by the vast majority of people including a very large number of economists. The view that markets work perfectly and that capital market liberalisation was a good thing were views of a small minority of economists, a lot of whom were in the US. Today most economists now agree with the position I hold on capital market liberalisation. Even the IMF concedes this point. If you look at the substance of most of the positions I have taken, I think now, a couple of years after the series of financial crises in the 1990s, the balance of opinion has shifted very much towards the views that I had advocated at the time. For example, the IMF now agrees that it did adopt excessively contractionary fiscal policy during the East Asian crisis. I do not think that I was a maverick to say that when an economy faces an economic downturn that you do not want to have Hooverite policies trying to reduce the deficit. If anything the IMF was the maverick in trying to impose those kinds of policies. Typically, people in what might be called establishment positions enjoy the perks of those positions sufficiently that they do not want to risk losing them. But my view is that when you accept a powerful position, especially at the World Bank, you also have a certain responsibility to reflect the interests of the developing countries, particularly the poorest groups in those countries. Someone has to speak out for them. I did not waver in that commitment to the developing countries, which is the only reason I left academia in the first place, and so some people interpret that as implying that I am a maverick.

Do you think the crisis may have been avoided if these countries had not pegged their exchange rates to the dollar?

No. We know from history that there are crises associated with flexible exchange rate systems as well as fixed rate systems. One way of putting it is to look at other assets whose price is market-determined. We do not have fixed prices in stock markets but we know that stock market prices sometimes crash, defining crash as a sudden change of a large magnitude. So even with flexible exchange rates we could still have seen a crash. This point is particularly clear if we look at the case of Thailand where, if there had been no exchange rate peg with the dollar, there would have been appreciation of the exchange rate in the years prior to the crisis. That would have meant that the crash, when it came, would have been even greater. I don't want to argue that the exchange rate management policy in East Asia was ideal, but it was capital market liberalisation carried out at an excessive pace, and done the wrong way, which was the real source of the problem.

I suppose the IMF might turn round to you and point out that these East Asian economies are now well on the road to recovery and therefore the IMF medicine, although tough, did work. How would you respond to that line of argument?

That kind of argument from the IMF is garbage (*laughter*) and is a classic example of the *post hoc ergo propter hoc* fallacy. History shows that all recessions, no matter how serious, eventually come to an end. That IMF argument is like Herbert Hoover saying that the fact the US economy eventually recovered from the Great Depression proves that his policies must have been right. No sane person would fall for that argument (*laughter*). The crucial question is, could the downturns experienced by these countries have been shorter and less severe? If we look at the recovery of different countries in East Asia and ask which country had the shortest downturn with the smallest legacy of accumulated indebtedness, what do we find? It was Malaysia, which did exactly the opposite of what the IMF recommended. And there is a clear reason why doing the opposite of what the IMF recommended led to a faster recovery. Because they put in place capital controls they were able to have lower interest rates, fewer firms went into corporate distress and the cost of restructuring was much lower. Of course every country had different initial conditions and one has to do a more thorough statistical analysis to assess the factors at play *[see Rodrik, 1999; Kaplan and Rodrik, 2000]*. But it is a fact that Malaysia recovered without implementing an IMF programme. The slowest recovery was in Indonesia, which really suffered from IMF policies. The cutting of food subsidies just as the economy was going into a deep recession with falling real wages led to riots. You have to see this outcome, at least partly, as a consequence of the IMF policy which was predictable—I predicted that this would happen in Indonesia six months before it occurred, if they maintained their IMF policies. The political instability inevitably led to capital flight, the opposite of what the strategy was supposed to be achieving. Thailand was the best student of the IMF and it still isn't back to where it was in 1997. So in a sense we have witnessed a natural experiment. We can look at the perfect student that followed IMF recommendations and see that it experienced very slow recovery. The South Koreans also did a number of things which were not part of the IMF strategy and this also helped them experience the second fastest recovery. The IMF and World Bank told them to get rid of their microchip industry because of excess capacity. They did not do this and the profits from this sector have been very important in fuelling the recovery. They did not shut down many of their big banks as they were advised to do, and as Indonesia did. Indonesia's downturn was exacerbated by the IMF's strategy—even the IMF admits its mistake here—while Korea's recovery was helped by its more independent strategy.

Globalisation

Economists such as Jeffrey Sachs and Andrew Warner [1995], *Anne Krueger* [1997, 1998] *and Jagdish Bhagwati* [1998b, 2000] *see increasing international economic integration, on balance, as a positive force for improving economic well-*

being across the whole world. However, economists such as Dani Rodrik[3] *are less sanguine on the impact of globalisation. While recognising the enormous potential benefits of globalisation, in some of your comments at the January 2001 American Economic Association meetings you also questioned the enthusiasm of those in the pro-globalisation lobby who are not properly addressing the many potential dangers inherent in this process.*

My view is that globalisation can be a very powerful force for the good. You only have to look at the East Asian miracle and the recent performance of China to see what can be achieved by adopting a more outward-oriented strategy. Exports and FDI have been very important in these cases of rapid growth. The transfer of knowledge and technology is an important part of the globalisation process and the East Asian economies gained from this enormously. This shows that globalisation, done the right way, can be a very powerful positive force. But the critical point to note is that these countries managed the globalisation process, and made it work to their benefit. At least during the miracle era the East Asian economies were not swept along or persuaded by those whose ideology favoured capital market liberalisation. What I have been emphasising is that globalisation, done the 'Washington consensus' way, imposed on countries around the world, has been a very negative force. I don't think anyone can now doubt that. When you simultaneously force a country to liberalise imports and raise interest rates, calling this an adjustment package, you kill off employment. The idea of the package is to shift people from low-productivity employment to high-productivity employment, but what happens with high interest rates is that the new jobs are not created. The old jobs disappear but the new jobs don't appear so you move from low-productivity to zero-productivity employment! It's a good package to create poverty but it does not generate growth and employment. The critics of globalisation also say that there is more at stake than these economic effects. There are wider concerns relating to the impact of globalisation on democracy. Countries find themselves in situations where they are having policies imposed on them. It is not unlike the nineteenth century opium wars when countries were told to open up their markets and this threat was backed up by military force. Now it is an all or nothing deal. Either you do

[3] See www.ksg.harvard.edu/rodrik

it the Washington consensus way or we will exclude you. So countries feel that they have no choice when IMF policies are being imposed on them. You can see the adverse affects. Take the case of Russia, which followed the Washington consensus model. Poverty has gone from 2% of the population to almost 50%, based on the $4/day poverty standard. The Russian people were told by the Communists that capitalism would lead to poverty. The IMF said to the Russians, trust us, and you will experience unprecedented prosperity. For 50% of the people that has not been the case. What has happened is that a few people, the oligarchs, have become incredibly wealthy. Washington consensus policies advised the Russians to open up their capital markets. What did that produce? The oligarchs, who extracted their wealth from a series of illegitimate privatisations, had a choice of either investing in Russia or in the New York Stock Market. Russia was going through a depression caused by the IMF policy of high interest rates while the New York Stock Market was booming due to low interest rates. If you were an oligarch where would you put your money? So as the capital flowed out the economy went down even further. These are perfectly predictable consequences of these kinds of policies. Globalisation can bring benefits, but this will require a reform of the IMF so that it does not impose market fundamentalist policies.

Redefining the role of the state

During most of the last eight years you have been on leave from Stanford and have worked at the Council of Economic Advisors as a member (1993–95) and as Chairman (1995–97), and as Chief Economist and Vice President at the World Bank (1997–99). These experiences must have given you a lot of insights into how policymaking is carried out in practice. What did you learn and did it test your faith in what governments can achieve?

My Stanford colleague John Taylor warned me just after I joined the CEA that I would end up having a much more jaundiced view of what governments can achieve *[see Stiglitz, 1997b]*. It is certainly the case that I left the CEA with a much keener awareness of the negative side of government, especially the role of special interests in areas such as trade policy, agricultural policy and tax policy. On the other hand when I began working at the CEA and later at the World Bank I also saw the huge numbers of problems that markets did not address and it sharpened my awareness that there are numerous cases where government policies can make an enormous difference for the better. Almost all the success stories in terms of economic development, such as East Asia, were cases where government had assumed a very strong role. We should not forget that the government played an active role in the economic development of the United States. It is also the case that, historically, capitalist economies were much more unstable before the era of more active government involvement. The Great Depression in the 1930s was a massive market failure and led to the 'Keynesian revolution'. So while I recognise that there are collective action problems just as there are market failures, I left the CEA and World Bank feeling somewhat optimistic that we can address those problems.

The economic history of the twentieth century has shown that the countries which attempted to solve their economic problems by using central direction and the heavy hand of the state failed to achieve sustainable growth. You have addressed this question in your book, Whither Socialism, *published back in 1994. The 1997* World Development Report *marked an important milestone in the Bank's thinking about the role of the state and has contributed to the evolution of what you call the 'post-Washington consensus'* [Stiglitz, 1997a, 1998c, 1998d]. *Given your credentials as a leading critic of the Washington consensus policies, do you have a clear view of how we should be redefining the role of the state in the modern era? Do you believe there is a coherent middle way?*

Yes I do. Some people like to call it the third way and it reflects the fact that the great ideological battles of the past are over. Everyone now rejects the socialist heavy state planning model and I hope that increasingly people will also reject the Washington consensus *laissez-faire* model. Between those two there is a wide spectrum. There is a growing consensus that successful development requires active government involvement, but that it is important to improve public interventions so that they promote welfare. But finding an answer to what governments ought to do and ought not to do is not an easy one and has occupied the minds of economists since Adam Smith. The role of the state will change with a country's stage of economic development as well as changes in the external environment. For economists the basic framework for analysing this question is market failure. Markets are very powerful but they can also fail, not only because of externality and public good considerations but also due to numerous problems arising from incomplete markets and imperfect information. The ideas I developed with Bruce Greenwald *[the Greenwald-Stiglitz theorems, 1986]* showed the potential for welfare-enhancing government interventions in many areas. Financial markets, for example, are essentially concerned with the efficient allocation of scarce capital to its most productive uses. Clearly this involves solving an enormous information problem in a world of uncertainty. As well as producing information, a well-functioning financial market needs to process, disseminate and make effective use of that information. If financial markets function well, scarce capital is allocated to high-return activities. If on the other hand financial markets malfunction, then scarce capital is allocated to low-productivity activities and the impact on growth can be huge. When imperfect information and incomplete markets are important features of a market economy, Pareto inefficient outcomes provide governments with a potentially welfare-enhancing role *[Greenwald and Stiglitz, 1986]*. It is no accident that governments play a significant role in all the successful financial markets including Wall Street, which is highly regulated. We also know a great deal more about collective action failures and how to mitigate such failures. I was involved with these kinds of issues when I was at the Council of Economic Advisors, when we were working on the 'Reinventing Government' initiative. It is important to recognise that the extent of market failure will vary from country to country and so will the extent of collective action failure. So it is important to reduce the impact of both kinds of failure. Another key aspect of the change in philosophy on this question is a movement away from seeing the issue as an 'either or' situation between markets and government. The question is not whether a government should get involved in an economy, but what forms of intervention are most appropriate. Today economists are looking at how markets and government can work together in a complementary way, and seeing the relationship between government and markets in terms of a partnership. For example, as I said before, the financial sector has a major role in allocating financial resources to ensure efficiency, but government also has a critical role in regulating that sector to maintain competition and the stability of the financial system. The financial system plays a key role in promoting development but if it is not functioning well it can also be a major source of instability. In East Asia the excessively rapid financial market liberalisation, carried forward without providing adequate facilities for regulation and monitoring, allowed the banking sector to make too many high-risk loans. The result was predictably disastrous. Without governments taking a regulatory role you almost always have such problems *[Stiglitz, 1998e]*.

Democracy and economic development

In his essay on democracy, Jagdish Bhagwati refers back to what he calls the 'cruel dilemma thesis', the idea that successful development is unlikely with democratic political institutions, at least in the early stages of development [Bhagwati, 1998b]. *Bhagwati argues that this thesis has been shown to be nonsense. How important is it for the economic development of poor countries that they build democratic political institutions?*

I think that the old view referred to by Jagdish has been totally discredited. In fact it was wiped out over a decade ago when Partha Dasgupta *[1993]* did some very important work on this. The idea that you need a dictatorship in order to generate good economic growth is just plain wrong. As time has evolved we can now see a variety of reasons why democracy is both good for poverty and economic growth. For instance, we know from Amartya Sen's work that you do not have famines in countries that have a free press *[Sen, 1981, 1999; Snowdon, 1985]*. The right to free speech is an important check on government and puts pressure on it to address issues which are important to all of the population, rather than concentrating its efforts on the priorities of powerful privileged groups. I also firmly believe that there should always be a strong presumption in favour of openness and transparency in government *[Stiglitz, 1999e]*. Secrecy in government is a way of exercising control because access to important information is a major source of power. To have a meaningful democracy requires well-informed citizens and I think that government information, with few exceptions, should be regarded as public property. Dictatorships are governments that deny their citizens access to information, severely restrict the transparency of their decision-making processes, and are not held to account at the ballot box. This enables political leaders to abuse power, restrict or deny basic human rights and adopt policies which are not supported by the majority of citizens. We also know that if policies are imposed from outside without a strong basis of support, they will be overturned. We have many examples of the power of democratic consensus on development. Democratic Botswana has been a marked success. Some people say this is due to the diamond deposits. Well, Sierra Leone has diamonds but by comparison to Botswana it has, so far, been a development disaster. So what is the difference between Sierra Leone and Botswana? Botswana was very careful in having consensus-based policies. On the occasion that the IMF tried to impose its policies, Botswana rejected them. They said they would prefer to sort out their own problems and maintain the social fabric. India has recently had four changes in government in as many years and yet the reform policies remain in place and these are policies which were not imposed from the outside by the IMF, but were home-grown.

Janos Kornai [2000] *has argued that while 'democracy is not a necessary condition for capitalism to function…capitalism is a necessary condition of democracy'. Do you agree with Kornai's view?*

I think what Janos Kornai is really emphasising is that if you have too much state control then the state also has the power to suppress democracy. Concentration of power in the economic sphere will tend to concentrate power in the political sphere. An important aspect of democracy is that you need to have independent sources of power. Special interest groups are a constant threat to the welfare of society as a whole and institutions need to be designed which promote openness, political competition and a free press.

Macroeconomics, growth and stability

Since the mid-1980s there has been a rebirth of interest and research in the field of economic growth. The endogenous growth literature, stimulated in particular by the work of Paul Romer, emphasises endogenous technological change, knowledge and ideas [see Romer, 1994, 1999]. *Do you think that these recent theoretical and empirical developments have led to any substantive improvement in economists' understanding of economic growth, such that it gives policymakers a better understanding of the causes of growth?*

First let me make a comment on the history of economic thought with respect to growth analysis. The importance of knowledge was recognised way back. I was writing about what we now call endogenous growth theory back in the 1960s, as was my teacher, Hirofumi Uzawa, and my colleague Karl Shell *[see Uzawa, 1965; Shell, 1967; Atkinson and Stiglitz, 1969]*. I think there has been insufficient recognition of this earlier work in the 1960s. Even earlier Joseph Schumpeter *[1934]* made important contributions to the idea of endogenous growth. Coming back to your question, I think the accumulation and transfer of knowledge is an essential part of stimulating successful development, absolutely vital *[Stiglitz, 1999a]*. There are lots of aspects of policy that affect the pace of knowledge accumulation, including the extent of openness of an economy. Knowledge accumulation is influenced by the education system and whether children study the history of the Kings and Queens of England rather than study technological knowledge (*laughter*).

In a recent issue of the Journal of Economic Perspectives *Robert Lucas* [2000] *has a paper talking about the issue of economic growth and convergence. He concludes that paper by saying that 'the restoration of inter-society income equality will be one of the major economic events of the century to come'. Do you share his optimistic prediction? It seems to me that on a per capita basis, what happens in China and India is crucial to the convergence question given that combined they have over one third of the world's population.*

Looking at it from that perspective it is very clear that there is convergence going on. China and India are converging and this is being driven very much by the convergence of technology and knowledge, both technical and organisational. That has been one of the very positive aspects of globalisation. So I feel quite confident about the future for those two countries with respect to the process of economic convergence. Since the late 1970s, following the economic reforms, China has been the fastest-growing economy *[Stiglitz, 1998f]*. Because this growth initially was heavily concentrated around the coastal regions of China, this has created internal regional divergence. Encouraging the spread of growth to all of China's regions will be a challenge for the future. But the main problem remains the divide between the main industrial countries and sub-Saharan Africa. Africa is facing enormous problems of disease and civil strife which continue to compound its other problems. So I am pessimistic with respect to convergence for that part of the world. There are a few countries in Africa where there is cause for optimism, but generally the overall picture there is depressing.

In your Manchester School *paper* [1999d] *part of your discussion relates to the recent trend in many countries to adopt central bank independence in order to take key parts of macroeconomic policy out of the hands of politicians. This recommendation has been fed by the political business cycle literature, the time inconsistency literature, empirical research, as well as the ideas emanating from the public choice school. In 1997, Britain's 'New Labour' government hit the ground running by giving the Bank of England operational independence within days of coming into office* [Snowdon, 1997; Snowdon and Vane, 1997]. *While I feel that this changeover in the conduct of UK monetary policy is, on balance, likely to improve macroeconomic stability compared to the outcome of monetary policy performance over the post-war period, you seem to have several misgivings about institutional arrangements which rely on 'technical experts'. What is it that worries you about policies like central bank independence?*

There are several separate issues which are important here. What particularly concerns me are independent central banks that are not politically accountable and are not representative of the values and views held by wider society. I see the achievement of full employment as a very important means for achieving socially equitable progress. Not only is large-scale involuntary unemployment a waste of scarce resources, it also has enormous human costs and can in some extreme cases threaten political stability. However, central banks invariably worry more about inflation than unemployment. That is not a question of expertise but relates to the social welfare function. Central banks may pursue the interest of one group over others. Although research has shown that high rates of inflation have significant economic costs, that same research has failed to demonstrate that low inflation is costly *[Fischer, 1993; Barro, 1997; Temple, 2000]*. Any central bank which tries to push an already low rate of inflation even lower will impose certain costs on society far greater than any potential and uncertain gain. Of course you could have central banks which have genuine expertise and which are more representative, but very few have done this. In addition, many central banks have independence but not expertise. If you think of what are the major obligations of central bank policy then you immediately think of expertise in macroeconomic management. But if you look around the many independent central banks you do not necessarily see that macroeconomic expertise present. Take the United States. There are very few macroeconomic experts on the Federal Reserve Board. Instead you see business people and Wall Street types who don't know much at all about macroeconomic stabilisation. So it's an illusion of expertise, and the idea that independence will automatically lead to greater expertise is just wrong in many cases. The broader issue that I have raised is that every democratic society has to decide how to bring greater expertise into decision-making and how to combine this expertise with accountability *[Stiglitz, 1999a, 1999e]*. The answer to that question is certainly not black and white. But in every case you must introduce accountability along with the expertise. If you have the kind of institutional structure where people know to whom they are responsible you can have some degree of independence and accountability. But that is not the way that it is often presented.

Your Stanford colleague John Taylor [1998, 2000] *believes that the long 1990s expansion is mainly due to the better conduct of monetary policy. A similar view is held by Christina Romer* [1999]. *Do you agree?*

No, I don't think that there is any real evidence of that except in the following sense. It is always the case that macroeconomic policy is carried out in an environment of great uncertainty. Experience has shown that bad macroeconomic policies have the potential to do immense harm. So we know that the Great Depression of the 1930s as well as several post-war recessions were caused by bad monetary policy. When Paul Volcker raised interest rates in the late 1970s and early 1980s to very high levels it caused a major recession. Experience has also shown that it is much easier to push an economy into a major recession than it is to pull one out. So we know that very bad monetary policy can end an expansion and cause a recession. Therefore, if you say your definition of good monetary policy is to avoid bad monetary policy then Romer and Taylor are right. But if you ask me what led to the continuous economic expansion over the last eight years, the longest in history, then I would identify as important the deficit reduction, which contributed to lower interest rates, and a strengthening of the banking sector that encouraged better lending than under deregulation.

Why has unemployment fallen so low in the US during the 1990s without inflation accelerating? What has happened to the NAIRU?

An important issue among economists in the United States during the 1990s was the great uncertainty surrounding the level of the NAIRU. Most economists now accept that the NAIRU is lower than a variety of estimates suggested a few years ago *[Gordon, 1998; Katz and Krueger, 1999]*. Research that we carried out at the CEA showed that the NAIRU in the US has been falling since the mid-1980s. Several factors have contributed to the falling NAIRU, the most important of which have been increased competition in both product and labour markets, favourable demographic influences and the wage-aspiration effect. The latter refers to the short run favourable impact on the NAIRU of workers adjusting their real wage target so that it more accurately reflects productivity growth. The fear of the inflation hawks, who view the economy as if it were always on the edge of an inflation precipice, is simply not justified. Small policy errors will have only small consequences for inflation. I have also argued that there is some evidence to show that the Phillips curve might be concave rather than convex and this allows a risk-averse policy-maker to lower unemployment without having to worry too much about inflation accelerating *[Stiglitz, 1997c; Solow and Taylor 1997]*. If it should accelerate, the cost of reversal is not high. As it turned out the Fed did not lose its nerve as unemployment fell below the previous 6.2 per cent estimate of the NAIRU and the benefits for the US economy in the 1990s have been enormous.

Current research

Although in the past you have produced papers in a whole series of fields simultaneously, is there a particular focus for your current research?

After leaving the World Bank I became Senior Fellow at the Brookings Institution in Washington DC and then returned to teaching and research at Stanford. I am now finishing two books; one on monetary theory and another on development and crises.

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