



Asian Monetary Integration: Will It Ever Happen?

Tharman Shanmugaratnam

Sunday, September 17, 2006
Singapore

THE PER JACOBSSON LECTURE



Asian Monetary Integration: Will It Ever Happen?

Tharman Shanmugaratnam

2006

ISSN 0252-3108

Editor: Archana Kumar

Composition: Alicia Etchebarne-Bourdin

Cover design and production: IMF Multimedia Services Division

The Per Jacobsson lectures are available on the Internet at www.perjacobsson.org. Copies of the Per Jacobsson lectures may be acquired without charge from the Secretary of the Foundation.

Contents

	<i>Page</i>
Foreword	v
Opening Remarks <i>Andrew Crockett</i>	1
Asian Monetary Integration: Will It Ever Happen? <i>Tharman Shanmugaratnam</i>	3
Appendix: Supporting Data.	19
Questions and Answers	21
Biography	29
The Per Jacobsson Lectures.	30
The Per Jacobsson Foundation	33

Foreword

The second 2006 Per Jacobsson Foundation Lecture was delivered by Tharman Shanmugaratnam, Singapore's Minister for Education and Second Minister for Finance, on "Asian Monetary Integration: Will It Ever Happen?" at the Marina Mandarin Hotel in Singapore on September 17. The event was jointly organized by the Per Jacobsson Foundation and the Association of Banks in Singapore. Sir Andrew Crockett, Chairman of the Board of the Per Jacobsson Foundation, chaired the event.

The Per Jacobsson Foundation lectures are held annually on the occasion of the Annual Meetings of the International Monetary Fund and the World Bank. From time to time, an additional event is also organized in conjunction with the Bank for International Settlements in Switzerland. The Per Jacobsson Foundation was established in 1964 to carry forward the work of international cooperation in the monetary and economic field to which Per Jacobsson, the third Managing Director of the IMF, had devoted his professional life. The main purposes of the Foundation are to foster and stimulate discussion of international monetary problems, to support basic research in this field, and to disseminate the results of these activities.

Further information about the Per Jacobsson Foundation may be obtained from the Secretary of the Foundation or may be found on the website, www.perjacobsson.org.

Opening Remarks

ANDREW CROCKETT

Delegates, honored guests, ladies and gentlemen, it is my pleasure, on behalf of the Per Jacobsson Foundation, to welcome you to this Per Jacobsson Foundation Lecture. Over the past 40 years or so, this lecture has become a fixture of the Annual Meetings of the International Monetary Fund and the World Bank, and we have been privileged to have a very distinguished range of speakers. Per Jacobsson, as many of you know, was the third Managing Director of the IMF and, prior to that, the Chief Economist of the BIS. He was a very distinguished member of a long line of distinguished Managing Directors.

Also, on behalf of the Foundation, I would like to express our appreciation for the generous support for this event provided by the Association of Banks in Singapore, and I am delighted that the Chairman of the ABS, Mr. Wee Ee Cheong is with us today, sitting here in the front row, along with a number of other representatives of the Association.

It is a particular pleasure for me to introduce Tharman Shanmugaratnam, universally and more simply known as Tharman, who has been a friend and colleague of mine for a number of years. Many of you will know him: he is extremely well known in Singapore. Much of his career was spent with the Monetary Authority of Singapore, but he has given very distinguished service also in education and finance. I think one could say, looking at his career—starting with his academic qualifications at Cambridge University, the London School of Economics, and Harvard, where he was cited as a Littauer Fellow—that he has focused on these areas. And he is now, as most of you will know, involved both in education, through his role as Minister for Education, and in finance as

Second Minister for Finance. I think you call that “double-heading” in Singapore.

Tharman entered politics five years or so ago and has subsequently been reelected, and, as a political representative, he has been and is a minister in the government.

I think you will agree with me that his distinguished background, academically and in public life, fit him extremely well to give the Per Jacobsson Foundation Lecture as the latest in a line of distinguished speakers, and to address us this afternoon on the subject of “Asian Monetary Integration: Will It Ever Happen?”

Tharman.

Asian Monetary Integration: Will It Ever Happen?

THARMAN SHANMUGARATNAM

Mr. Crockett, Mr. Van Houtven, Mr. Wee Ee Cheong, distinguished guests and friends—and I do see many friends in the audience—first of all, let me say that it is my privilege to be giving this lecture. I come after a long line of much more distinguished speakers, and I really feel honored that Andrew and others invited me to deliver this talk today.

INTRODUCTION: THE CHANGING PREMISES OF THE DEBATE

The last Per Jacobsson Lecture in Asia was in 1997. Mr. Joseph Yam, Chief Executive of the Hong Kong Monetary Authority, spoke on a topic broadly similar to what I am speaking on today, which is Asian monetary integration or, as he put it at the time, Asian monetary cooperation. September 1997 was at the onset of the Asian crisis. Since then, there have been major changes and considerable evolution in the debate on Asian monetary integration.

The Asian crisis proved deeper than anyone could have foreseen in September 1997. It has left a scar on the minds of Asian policymakers. But the recovery from the Asian crisis has also been robust, a recovery that is founded on structural reforms that were put in train as a result of the Asian crisis. Exchange rate regimes have evolved. They are by and large more flexible. Capital controls and restrictions—some had been in place for a long time, some were put in place during the crisis—have been eased. And trade and investment are proceeding apace. The region is increasingly integrated in trade and investment and, to a lesser extent, in financial flows.

So Asia today is a very different place from 10 years ago.

The original motivation for proposals for Asian monetary integration—which started off as proposals for an Asian monetary fund and a parallel set of proposals for an Asian currency, that is, a common currency or monetary union—had to do with a desire to reduce Asia’s susceptibility to shocks, particularly financial shocks. There was also a broader sense that Asia had to be more self-reliant and gain fuller control over its destiny. And this broader sense reflected, in part, a discomfort at the time with what was known as the Washington Consensus, and a particular discomfort over the role of the IMF in the Asian crisis. Monetary union was in some ways a metaphor for Asia wanting to manage its own affairs.

But Asia has evolved. Asia has recovered. While the crisis remains in our minds, we are no longer in crisis. The Washington Consensus, although of course never a fixed or clearly identified set of views, has also been refined over the years. The conventional wisdom, whether at the IMF or in academia or in policy-making circles in the West, has evolved. There is greater circumspection with regard to optimal exchange rate regimes, greater recognition of the merits of intermediate solutions—as distinct from corner solutions—in exchange rate policy. There is a more nuanced view on the merits of capital controls and restrictions in specific circumstances. And there is a much sharper recognition of the need for financial market stability during periods of structural reform and, in particular, of the need to avoid precipitating financial panic.

Not surprisingly, the objectives and motivations behind the continuing debate for Asian monetary integration have also evolved. The objectives are no longer defensive, no longer preoccupied with crisis prevention or resolution. They are now more forward looking. The objectives are about growth, about greater trade integration, about spurring greater cross-border flows of investment within Asia, and about promoting the integration and deepening of financial markets.

It will be useful, before I address directly the issues involved in Asian monetary integration, for us to take stock of how we are faring in trade integration and financial integration, respectively, because these are the ultimate objectives of the proposals that we have before us on monetary integration. Whether what is

proposed is a common currency or a parallel currency or managing Asian currencies against a common basket of currencies, the objective is to promote trade and financial integration so as to enhance economic welfare.

ASIAN TRADE INTEGRATION IS DRIVEN BY ASIA'S INTEGRATION WITH THE WORLD

First, let us take a look at trade. Intra-regional trade in Asia is already rather high. No one expected it to get to this point so quickly. In 1980, intra-regional exports were about 34 percent of total Asian exports. That proportion is now 50 percent—not so different from among the member countries of the North America Free Trade Agreement (NAFTA), although still below Europe, where it is about 61 percent or so, and certainly below Europe at the time of formation of the European Union (EU), when intra-regional trade was about 65 percent of total trade.

At 50 percent, a big chunk of Asia's trade is now already intra-regional. But it is fundamentally different in nature from Europe in a number of respects. Intra-regional trade in Asia has been driven from bottom up, by the activities of firms involved in cross-border production processes. It is basically a supply-driven process.

One indication of this is in the composition of intra-Asian trade, which is quite different from that of intra-European trade. Intra-Asian trade consists principally of intermediate goods—raw material inputs and components of one form or another—rather than final goods, which is what has characterized much of intra-regional trade in Europe both before the formation of EU and after.

It has been about vertical integration, with China playing a key part in this. The surge in intra-regional trade in Asia has in fact been shaped by China's integration into the world economy. Around China has been built a whole set of supply chains in different industries that extend across Asia, including Japan, Korea, and Southeast Asia.

This means also that rising intra-regional trade in Asia has not been a process of Asia increasingly looking inward. It has been part and parcel of Asia's integration with the rest of the world economy. If you look at the last 10 years, 1995–2005, intra-regional trade within Asia doubled in volume, which is a very substantial expansion by any standard. But, at the same time,

there was no change in the share of Asia's intraregional trade to its total trade, because trade with the rest of the world expanded equally rapidly. So, over the past 10 years, the share has remained at 50 percent—despite the doubling in the volume of intraregional trade.

So it has been a bottom-up, supply-driven process, linked to the manufacturing supply chain, which is increasingly centered on China.

What next? How will this evolve?

I think we are about to enter a whole new phase of growth of intraregional trade in Asia, and, 20 years from now, it is a fair guess that we will have reached a position not very different from Europe today. There are three reasons why I say this.

Three Factors Driving a New Phase of Trade Integration in Asia

First, we are seeing now the start of a *new phase of foreign direct investment (FDI) inflows within Asia*. There are several factors behind this.

I start with Japan, which is still the largest Asian economy: at market exchange rates, which is what matters for international trade and investment, Japan has the largest GDP in Asia by far, twice as large as that of China. Japan has seen a recovery of corporate profitability and a recovery in the financial position of its banks. It is a healthier economy. And the fundamental transformation in Japan that took place in the 1990s, which was halted for some years, is now likely to pick up pace: the shift from manufacturing to research, and design-driven production, and to services. This will mean a decanting of manufacturing operations, particularly many forms of mass manufacturing that are still located within Japan, out of the country, with major implications for Asia. Take Japan today and compare it with the United States. Twenty-four percent of Japan's GDP is still in manufacturing, whereas for the United States, the proportion has fallen to 14 percent. Japan has 18 percent of employment in manufacturing, compared with 10 percent for the United States. In both countries, these shares have declined over time, with Japan typically about 15 years behind the United States. And I think Japan is going to continue to move in that direction. It may not reach U.S. levels,

but it is going to continue to decant manufacturing offshore. The numbers that we are talking about are very large.

The Economist Intelligence Unit (EIU) estimates that the stock of Japanese FDI abroad will increase by 65 percent in the next five years. Historically, about one-third of Japanese investment abroad has gone to other countries in Asia. We can expect at least one-third of the increase in the stock of Japanese investment in the next five years and beyond going to the rest of Asia. But it will not be only a China story. Japanese firms have already significantly stocked up on their investments in China. They had been underinvested in China. Their subsequent investments in China have corrected for this, and they are now no longer underinvested in China. So, going forward, for fresh flows of Japanese FDI, we can expect to see a more diversified set of locations—not just China, but Southeast Asia and India as well, that is, a more diversified approach covering the whole of Asia. And with that will emerge new supply chains like what we have seen in the motor industry in Southeast Asia, but extending to a whole set of other industries.

Next, besides Japan, we are now seeing the start of a wave of outbound FDI from other Asian countries that we have not seen before: in particular, from China and India, which will be the major new players in the next 20 years. Chinese and Indian firms are substantial players that are now looking across Asia for new markets as well as new sites for production, much as the Western and Japanese multinationals did in an earlier era. And this, too—whether it is Tata Steel or Hua Wei, or a whole new set of firms coming out of these two large megaplayers—this too is going to lead to increased intraregional trade.

The *second* factor that is propitious to the growth of intraregional trade is the fact that the *middle class* is now coming into its own in Asia. It is already large, but it is now growing much faster than GDP. By some estimates, by 2010, we will have a middle class of about 650 million people in China, India, and Southeast Asia. That is about 75 percent growth in five years, which will mean a tremendous escalation of demand for things that you cannot obtain at home. They will want imported products, which differentiate themselves from the others. This is going to spur a whole new growth of imports, not just from within Asia. There will be an expansion of Asia's demand for the world's exports.

The Asian supply chain will increasingly be oriented not just to the United States and Europe but also to Asian final demand as well. This is a new phase in intraregional trade.

The *third* factor is *the broadening of free trade agreements* (FTAs). The momentum of FTAs in Asia is growing. The Association of Southeast Asian Nations (ASEAN) was a leader, and ASEAN has now set itself a more ambitious target of achieving an ASEAN Economic Community by 2015—with a free flow of goods, services, investments, and skilled people within the Community. ASEAN is also negotiating with China and India to have FTAs with those two megaeconomies.

What started as bilateral deals have cascaded into regional FTAs and can eventually support multilateral trade liberalization. It is a cascading process which tends to be a little messy and some say carries the risk of having a “spaghetti bowl” or “noodle bowl” effect. But I would say, better a bowl full of noodles than an empty bowl. Better that we create the momentum and the political economy that favor reform in each of these economies through bilateral and regional FTAs. That can only be propitious to multilateral trade liberalization.

So this process of FTAs, starting with bilaterals, moving on to regionals and then cross-regional FTAs, is itself going to spur intraregional trade in Asia. This is another reason why I say we are very likely to get to at least 60 percent of Asian trade being intraregional within 10 years.

A resurgence of intraregional investment and the growing domestic demand spurred by a rapidly expanding middle class will lead to an expansion of intraregional trade, aided and abetted by FTAs that reduce barriers to trade within the region. It is essentially a bottom-up process, aided top-down. With or without monetary union, we are likely to get heightened intraregional trade.

URGENCY OF ASIAN FINANCIAL INTEGRATION

Next, I shall talk about financial market integration—because this too is an important reason behind proposals for a common currency. This is where Asia has lagged, as we all know. Financial market integration has lagged substantially behind trade integration, and this is why Asian saving surpluses are intermediated largely through financial markets outside Asia.

The reasons are also well known. Asian financial markets outside Tokyo are mostly small and illiquid. Bond markets are especially underdeveloped, although government bond markets across the region are now in better shape than they were five or six years ago. However, by and large, the secondary markets for government bonds with maturities beyond five years are not liquid, so there is a lot more work to be done. The corporate bond market is at a fledgling stage. It is more developed in countries like Malaysia and Singapore, where it represents about 40 percent of GDP but, otherwise, in Asia at large, this is the big opportunity for reform and development in financial markets. My colleagues and I have been speaking about this at other fora, so I will not elaborate here.

Equity markets are more developed but they also are fragmented and less liquid than those in the industrial countries. Market turnover or velocity ratios are generally lower than in the United States or Europe. As a result, Asian equity investors, by and large, have looked elsewhere. They have looked outside Asia to invest surplus funds and to diversify their portfolios. In fact, only 12 percent of the foreign portfolios of Asian investors are invested within Asia itself. Compare that with the European Union, where about two-thirds of the foreign portfolios of European investors are invested within the EU.

The situation will evolve. It will evolve especially as exchange rates become more flexible so that surplus savings in Asia are not principally held in the form of official foreign reserves but, increasingly, in the form of private holdings of foreign assets.

It will also evolve through collaborative efforts to develop the capital markets in Asia. This is something that cannot be left to the markets alone, because capital market development requires public goods to be in place. It requires governments to act, first, to adopt international standards of disclosure and international accounting standards, and, second, to provide harmonized rules and regulations across Asia to increase access and reduce costs for investors. We are working on these issues in several fora, including the Executives' Meeting of East Asia-Pacific Central Banks (EMEAP), ASEAN, and ASEAN+3 (ASEAN plus Japan, China, and Korea). There is clearly a lot more work to be done.

We also have to set in place the infrastructure that is required for capital markets to be integrated. There is presently no work-

ing cross-border clearing or settlement system in Asia for either the fixed-income or equity markets. It is virtually nonexistent. This is again something which all of us are working on—the Asian Development Bank and various regional fora. We need some urgency in this process of putting in place the infrastructure as well as the rules and regulations to encourage greater cross-border flow of funds.

Easing Capital Restrictions

It will also require an easing of capital controls and restrictions in Asia. We know that sequencing is important. We know that the pace at which you ease capital controls and lift them has to be shaped by prudential considerations and linked to financial stability, particularly of the banking system. But the direction has to be clear and we cannot afford to be too slow in this process.

Asian policymakers have to address the trade-off that we have always faced: the trade-off between wanting to avoid the volatility that comes with freer capital mobility, on the one hand, and wanting and needing greater liquidity in our markets, on the other. We will not have more liquid markets without a freer flow of capital, both from within the region and from global markets. And everyone wants liquidity—not just short-term investors or alternative fund managers but also long-term investors, who prefer more liquid markets so that they can exit without paying a high price. So what is in the interests of short-term investors is also by and large in the interests of long-term investors.

We have to pay careful attention to sequencing. But we cannot be too slow in lifting capital controls and restrictions in the region if we want to develop healthier and deeper financial markets.

We should aim for a seamless flow of trading, clearing, and settlement across the debt and equity markets in Asia. But the outcome of this will not, I think, be what you see happening in Europe, where you have an extremely heavy concentration of financial activity in one financial center, that is, London, with a number of smaller, satellite financial centers outside London. In Asia, I can see, for a long time to come, vibrancy in several centers: Tokyo, by virtue of the enormous hinterland around it provided by the Japanese economy; Shanghai too, increasingly servicing a large domestic hinterland; Mumbai coming up and eventually occupying the same

place; the international financial centers, namely, Hong Kong and Singapore, each having distinct niches, competing with each other, but also complementing each other; and other domestic financial centers—Kuala Lumpur, Bangkok, Jakarta—some of which will also have international niches, like Kuala Lumpur in Islamic finance.

Therefore, I see competition and complementarity in this emerging set of financial centers across Asia—not the London effect.

ASIAN MONETARY INTEGRATION: A WAY FORWARD

What do these developments mean for Asian monetary integration?

The debate over Asian monetary integration is now about whether a common currency or some system of coordination of exchange rate policy across Asia can foster enhanced intra-regional trade, investment, and financial flows. There is a decent economic case for expecting that it would. Most of the economic studies of such currency unions provide evidence that either a common currency or some formal arrangement to link currencies with each other will be advantageous to intraregional trade and financial flows. In the European case especially, it is clear that the development of financial markets and cross-Europe financial flows have been spurred by the introduction of the euro.

Put simply, the European experience involved a schema where economic integration started principally with trade, then moved on to monetary integration. A single currency, in turn, spurred greater financial integration and reinforced trade integration. The question is whether this European schema is relevant or appropriate for Asia. I would argue that it is not.

Why the European Schema Is Not Appropriate for Asia

The fundamental issue for policymakers concerns the trade-off between the benefits of having a common currency, which arise principally from enhanced trade and financial integration, and the costs of losing autonomy over domestic monetary policy—that is, losing the ability to adjust either your exchange rate or domestic interest rates in response to your own economic cycle. This is the basic trade-off that Asian policymakers inevitably face when they ask themselves if a single currency, or any other form of monetary integration, will enhance economic growth and the welfare of their citizens.

Are Asian countries prepared to lose their ability to use the exchange rate as a shock absorber in certain circumstances? Are they willing to lose the ability to adjust interest rates to respond to economic cycles? And is nominal convergence a necessary prerequisite in Asia for real economic convergence—for achieving a greater commonality of economic cycles in countries across the region and achieving over time a convergence in real incomes?

Even in Europe, this question is still being played out. These are still early days in the experience of the euro zone, but the evidence so far is that nominal convergence has not led to a narrowing of real economic differences. Some argue that nominal convergence has accentuated real economic divergences because of the loss of flexibility on the part of national policymakers to use monetary policy as a buffer or mechanism for adjustment in response to economic shocks.

Asia will face a more challenging task than Europe in ensuring that the costs of monetary integration do not outweigh its benefits. *First*, because *economic disparities* in Asia are wider than in Europe—far wider. In Europe, disparities in per capita income across countries are something in the order of 3 or 4 to 1; meaning that the richest economy, in terms of per capita income, is about three to four times richer than the poorest within the group. In Asia, the ratio is about 50–100 to 1.

What this also means is that we are likely to see, for a very long time to come, a large difference in growth rates between Asian economies with low per capita GDPs that are catching up and transforming themselves, like China and some of the ASEAN economies, and the more mature, higher-income, slower-growing Asian economies. This will likely mean different paths for their real effective exchange rates as well.

Second, economic structures in Asia are very different. We have economies that are governed by advanced technology and services, economies that are largely agrarian, and economies where mass manufacturing is the driver of growth. So these are very *different economic structures*, even with a high overall degree of intraregional trade. The shocks that Asian economies face and their response to shocks will therefore often be asymmetric. This makes exchange rate coordination a tricky task, even under the favorable conditions.

Third, there is a lack of a suitable *anchor player*. In the 40 years of transition to a common currency in the euro zone, the first 15 years involved pegging to the U.S. dollar while the last 25 years really involved de facto pegging to the deutsche mark. How this became possible can only be explained by events and experiences specific to European history—a history that brought a Germany that had gone through hyperinflation to be totally committed to low and stable inflation, and whose post-war social compact gave the Bundesbank the independence to pursue monetary policy with that singular objective. Further, because Germany was by far the largest economy in the Europe of the last quarter century and the divergences between Germany's circumstances and the rest were not so wide, most European countries were willing to commit themselves to following the Bundesbank. That is how they made this transition to a single currency, over 25 years—and even then with considerable stresses and strains in the union along the way.

Asia does not have the equivalent of a Germany to anchor the transition. Japan, currently the largest economy, has the low inflation preferences required of an anchor country. But Japan is very different from the other economies for reasons I have mentioned—different growth profile, different economic structure, different shocks affecting it, different responses to shocks. And Asia lacks, very obviously, the political history that brought the leading European countries together to decide that as a matter of political imperative, a union was preferable to any other outcome. Asia lacks that.

Will China—which will eventually be the largest Asian economy—play the role of a Germany? This is hard to envisage. China, for the next 20 or 30 years, will be an economy going through major transformation. It is still a principally agrarian society. No one can predict exactly how China will unfold. But an economy going through major structural transformations cannot play the role of anchor. Further, it will take some time before China itself can have an efficient monetary policy transmission mechanism.

So we do not have the advantage that Europe had in making the difficult transition from having different national currencies to a common currency by following a de facto leader in the deutsche mark.

Asia's strength lies in its diversity. This diversity is what makes intraregional trade an attractive and compelling economic propo-

sition. This diversity can also help in the diversification of financial portfolios across Asia. But, it is this same diversity that militates against monetary integration, because it raises its costs, including the risks of destabilization arising from monetary union.

Intermediate Proposals for Asian Monetary Integration

If a common currency or monetary union is therefore not viable, are there alternative intermediate proposals that are worth considering? Several proposals have been made. Broadly speaking, they fall into two sets.

The first is the idea of a currency basket—for Asian countries to manage their own currencies against a common basket through some form of a coordinated, managed float system. This common currency basket system would serve to constrain monetary policy and exchange rate policy independence among the member countries. Each of us would use the same currency basket as the benchmark, and adopt some form of a peg or managed float against this basket: possibly a band with a center point, with some flexibility in terms of the crawl of this band, but essentially de facto fixing against a common currency basket.

This is an appealing idea, but it would face great challenges of transition. With freer capital movements—which are essential if we want trade and financial integration—and our divergent economic circumstances in Asia, it would be especially challenging to sustain a system equivalent to the exchange rate mechanism (ERM) or the snake in Europe for a period of years. Even the ERM faced tremendous stresses along the way, requiring great political commitment to the eventual goal of achieving monetary union, to see them through. Asia does not have the same political imperative. So the strains and stresses arising from a coordinated system of pegs or managed floats against a common currency basket will not only risk destabilizing monetary integration but could also erode confidence in the larger game of Asian integration in trade and finance.

The second set of proposals involves establishing a parallel currency—an ACU or Asian Currency Unit, just like the former European Currency Unit (ECU). Some of the proponents of an ACU will make it very clear that this is not a transition to a common currency: the proposal is merely for the setting up of a parallel

currency, that is, a unit of account that could be used in the settlement of cross-border trade, or by financial institutions as a currency of denomination for bonds and other financial instruments. It will be a market-driven process with no obligation on the part of the national monetary authorities to peg their currencies to the ACU. It is a parallel benchmark of sorts.

I think this is worth considering, particularly if it can promote the debt market in Asia and help develop the regional capital market. It is not in any sense a scheme for *monetary* integration: there would remain national currencies with national monetary policies. I see it as a scheme for *financial* integration. It would be useful to have a currency of denomination that is widely accepted across Asia for bonds and other instruments: this is something we can explore.

But most proponents, like Barry Eichengreen, also agree that it will be a very slow process for an ACU, or any parallel currency, to be accepted by the market. Even in Europe, before the advent of the euro, the ECU never really took off as a currency of denomination, whether for financial assets and instruments or for trade. It never really displaced national currencies before the euro actually came into being.

If that was the case in Europe, it is all the more likely to be true in Asia. I would say that we can explore this idea, particularly if we can use a parallel currency to spur the development of financial markets, but it is not a scheme that takes us in the direction of monetary integration as such. And, as some have pointed out, too, prudential supervisors will also want to make sure that financial institutions, particularly banks, when using an ACU as a currency of denomination for loans or other assets, will not face currency mismatches vis-à-vis their national currencies, which have typically been the currencies of denomination of banks' liabilities. So prudential supervision is also likely to hinder the advancement of an ACU.

So an ACU is not a bad idea, but it is not intrinsic to the larger argument of whether we need Asian monetary integration or some form of coordination of national currency movements.

Toward De Facto Monetary Policy Coordination

What, then, is the alternative? I think the alternative is what we are already seeing unfold before us. First, Asian exchange

rates have now become a lot more flexible, compared with the period before the Asian crisis. To be sure, we are not all rushing toward freely floating exchange rates; in fact, apart from the yen, I do not think there is any other truly freely floating exchange rate in Asia today. But the majority of Asian currencies are now in some form of a managed float, with varying degrees of fixity or flexibility. We are all mostly operating a managed float system, that is, an intermediate solution. That is the first development.

Second, there has been increasing adherence to inflation targeting, or commitments to low and stable inflation as the objective of monetary policy. We see this across the region. Although the inflation thresholds may differ, the thresholds are all coming down. There is increasing clarity and conviction that the objective of monetary policy is to maintain low and stable inflation.

The combination of these two developments—the shift toward managed floats and the shift in the objective of monetary policy toward low and stable inflation—has brought about, *de facto*, a certain degree of coordination in monetary policy across Asia. Indeed, if you look at the correlation of Asian exchange rates over the past six years, that is, 2000–06, compared to the years before the crisis, 1990–96, the correlation for the recent period has been much higher despite the move toward greater currency flexibility.

I think this *de facto* monetary policy coordination—not top-down, but obtained because national authorities find it in their own interests to move in this direction—is not a bad way to go. It preserves flexibility when required. It allows secular trends in effective exchange rates to diverge over time to reflect the very different rates of productivity growth and the different transformations we are going to see among economies in Asia.

And it retains the agenda for change as a national agenda. Any top-down process, any process that is overly coordinated in Asia—by a committee or body outside of the national authorities—will not incentivize politicians to take ownership of change. The future of Asia is about change and reform in almost every sphere, requiring great political effort to convince populations, convince banks, convince firms, to move, to open up, to shake out the inertia. And unless national politicians and authorities feel that they own the agenda, change is going to be difficult.

This process that we are seeing—market-driven, national authorities responding to their own economic circumstances—leading, de facto, to increased monetary coordination is, I think, the best way to go.

CONCLUSION: KEEPING THE GEOMETRY OPEN

Let me conclude.

Intra-Asian trade has come a long way and has more potential yet. The FTAs that we are working on now across the region will foster its growth, but it is essentially a market-driven process. Market forces are going to take it further. Financial market integration has been progressing more slowly, and there is a lot more work to be done—it deserves greater urgency.

These are the big projects, the welfare-enhancing projects—trade integration and financial integration. These are the projects that will deepen liquidity and lower the cost of capital, spur investment, raise growth, and lower unemployment, which are the objectives of Asian policymakers. And they are founded, ultimately, on the diversity that we see in Asia. This same diversity is what will constrain monetary integration, and even the transition to any form of monetary integration.

The present path toward de facto monetary coordination is therefore, in my opinion, superior to any scheme of formal coordination.

Will it be necessary to have a scheme of formal coordination at some point in the future? I don't know. We need not rule it out, but the case is not compelling as it stands. The case is not compelling to move from de facto coordination toward a more formalized arrangement of exchange rate coordination.

We will only know in 20 years' time what the new Asia will look like. We will only know what happens to China, India, Japan, and Southeast Asia, and what the interactions will be between them, as we go along. This is a continent in transformation, and that means that we should not fix the geometry too early, whether in trade or in finance or in monetary integration. And monetary integration sends very strong signals on what the geometry is. We should keep the geometry fluid, keep it open, keep it looking outward. That is what has gotten us to where we are today, and remains crucially relevant for tomorrow.

Japanese economists such as Kojima used the metaphor of “flying wild geese” (“*ganko keitai*”) to describe the phenomenon of Asian industrial development through regional economic integration. Japan, at that time a leader, passed down technology and know-how to the NIEs [newly industrialized economies], which in turn passed it on to the Southeast Asian countries in a process of collective catch-up. It was a scheme that described the links and interdependencies between the Asian countries and how we ride on each other’s strengths. It was a good description of Asia in the ’70s and ’80s. It may be too structured, too hierarchical to describe the Asia that is now evolving. But it is not a bad way to look at Asia going forward, if we see flexibility in the arrangement and constant leap-frogging, yet all countries moving up in tandem.

Asia need not be defensive about not following the European path of top-down integration. We should celebrate the fact that Asia has got where it is through bottom-up, market-driven efforts. Keep it open, keep it fluid, and avoid doing anything that leads to a tripolar world.

Thank you very much.

Appendix: Supporting Data

Table 1. Intraregional Exports
(In billions of U.S. dollars)

	Asia-11*		
	Intraregional exports	Total exports	Intraregional exports as share of total exports (%)
1980	97	281	34
1990	288	721	40
2000	791	1,700	47
2005	1,390	2,792	50

Sources: CEIC database; and IMF, *Direction of Trade Statistics* (CD-ROM).

*Asia-11 comprises ASEAN-5, Taiwan Province of China, Korea, Hong Kong SAR, China, India, and Japan.

Table 2. Export Destinations of Various Trading Blocs, 2005

	Total Exports (% share)	Export Destinations (%)		
		Asia-11*	NAFTA	EU-15
Asia-11	100	50	21	15
NAFTA	100	17	54	14
EU-15	100	7	10	61

Sources: CEIC database; and IMF, *Direction of Trade Statistics* (CD-ROM).

*Asia-11 comprises ASEAN-5, Taiwan Province of China, Korea, Hong Kong SAR, China, India, and Japan.

**Table 3. Standard Deviations of Monthly Exchange Rate
Fluctuations Against the U.S. Dollar**
(In percent)

	January 1990–June 1997 Pre-Crisis	January 2000–August 2006 Post-Crisis
Indonesian rupiah	0.45	4.04
Thai baht	0.72	1.78
Japanese yen	3.22	2.75
Korean won	0.93	2.19
Malaysian ringgit	1.32	0.33
Philippine peso	2.18	1.99
Singapore dollar	0.86	1.25
Taiwan dollar	1.11	1.27

Sources: Bloomberg; and Monetary Authority of Singapore.

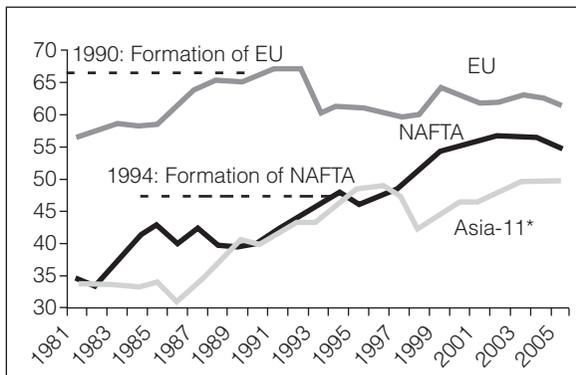
Table 4. Average Correlations of Currencies with Increasing Flexibility

	January 1990–June 1997 Pre-Crisis	January 2000–August 2006 Post-Crisis
New Asian flexible currencies*	0.10	0.40

Sources: Bloomberg; and Monetary Authority of Singapore.

*Philippine peso, Thai baht, Korean won, Indonesian rupiah, and new Taiwan dollar.

Figure 1. Intraregional Exports as Share of Total Exports
(In percent)



Sources: CEIC database; and IMF, *Direction of Trade Statistics* (CD-ROM).

*Asia-11 comprises ASEAN-5, Taiwan Province of China, Korea, Hong Kong SAR, China, India, and Japan.

Questions and Answers

ANDREW CROCKETT: Thank you, Tharman, for that very interesting and illuminating lecture. We have time for some questions. Before turning to questions from the floor, perhaps while people are writing down their questions to pass up or thinking about them, may I take the privilege to ask the first question?

You made a persuasive case, Tharman, that countries should have flexibility to pursue the exchange rate and interest rate policies that best suit their circumstances. How significant do you think the danger is that, in doing so, you may create tensions with other trading partner countries, perhaps within the region, or maybe even especially if the region is coordinated, that you may create a pattern of payments imbalances that provokes reactions from abroad? I am thinking, of course, of the situation now where many Asian countries semicoordinate their exchange rate policies but generate very substantial surpluses, which lead, at least at the political level, to a certain amount of noise from the rest of the world.

THARMAN SHANMUGARATNAM: I think that's a very important question. It is one of the weaknesses of the present situation that there is no immediate check on countries that want to run exchange policies that are effectively "beggar thy neighbor" policies aimed at short-term competitive gain.

But the situation is not one where these policies can be sustained for long, because each economy that runs, say, an undervalued exchange rate, faces its own problems within a matter of time—typically, the problems of excess liquidity, leading to distortions in their own economy. I believe too that policymakers are increasingly aware, through multilateral surveillance, through the advice we get from the ADB, the IMF, and others—they are increasingly aware of these problems.

There is a much stronger consensus in Asia now on good policy, good monetary and exchange rate policy, than there used to be before the Crisis. So, I would argue that Asian countries will realize that it is in their self-interest not to pursue currency policies aimed at the short term but to pursue currency policies that are aimed at a secular path that reflects the underlying fundamentals of their economies.

The current imbalances are not satisfactory for Asia—not just for the United States and others.

ANDREW CROCKETT: Thank you very much. Let's turn to the floor.

Question: My question is related to the accumulation of huge foreign exchange reserves in Asia. How do you view this huge accumulation of foreign exchange reserves, with a huge portion in U.S. dollars, in relation to the exchange rate policies and respective economic interests of the countries concerned?

THARMAN SHANMUGARATNAM: Well, that's a very large question that in fact has been discussed at several fora during these IMF and World Bank Meetings. Let me say very briefly that it is not just a question of exchange rate policy but fundamentally a question of savings and investment imbalances. And if we look at the sources of savings-investment imbalances in Asia—in China, in Southeast Asia—they suggest that a very complex set of structural issues are in play, such as Chinese consumption, with savings rates high and consumption low, being shaped by social security systems that are not fully developed. Why are Southeast Asian investment rates not as high as we would like? Again, the issues are structural—uncertain labor laws, the need for further reforms in the business environment and in financial supervision—these are some of the concerns that policymakers are working at.

I would say we should look past the external imbalances, look at the causes in savings and investment flows, and address solutions to those causes.

ANDREW CROCKETT: Thank you. I have a question from the floor here, a written question, which goes as follows: *“You argue for an endogenous monetary integration process. What prospects do you give for a formalized top-down economic and monetary*

integration process for Asia and other parts of the world? Do you rule out success for such a process?"

THARMAN SHANMUGARATNAM: Well, that is my whole talk, but as I concluded, we should always stay pragmatic in Asia. Never rule out a solution. The case is now not compelling, and I think the de facto evolution of Asian monetary regimes has been one that will allow us to get quite far in achieving our real objectives. We should always remember that our objective is not monetary integration. Our objective is trade and financial market integration.

NAFTA is a very interesting parallel for us to look at—Canada, the United States, and Mexico—all with floating exchange rates. They don't fix their exchange rates. There is a very high degree of trade integration, a high degree of financial integration, a high degree of cross-border FDI. Economic growth there has gone up by most measures. It has not required currency fixity.

I think that Asia will require more management of its exchange rates—we cannot let them be completely free floating—but the experience of NAFTA is, I think, more instructive than the experience of the EU for Asia.

Question: Singapore has the highest-value circulating banknote in the world—the 10,000 dollar note, which shows a woman scientist at her computer. Some 40 years ago, a film was made, I think with Gregory Peck, on his amusing efforts to spend or get change from a million pound note. Regarding Asian monetary integration or de facto cooperation, is there any plan to film a distinguished actress going around to banks and exchange offices in Tokyo, Shanghai, Mumbai, and Jakarta to demonstrate how rich Asians already are, without the need to introduce a common Asian million dollar note?

THARMAN SHANMUGARATNAM: Well, we will add this to the list of proposals for Asian monetary integration.

Question: At what pace and by what method do you think India should move toward greater convertibility of its own currency?

THARMAN SHANMUGARATNAM: Well, that is a very dangerous question to ask a minister in another government, and I would

not want to comment on India's priorities. There is, however, increasing sense among financial market players in India, and indeed the Prime Minister himself, that there is an opportunity for India to make Mumbai a true financial center. And that this will only occur if they go through a process of gradual removal of capital controls and restrictions. I doubt it will happen quickly, judging from the debate that is taking place right now, but if you take a 20-year view, whether it is about India or China, I think all countries, large and small, will see it in their own interests to try to achieve a freer flow of capital.

We are not purists, we are not ideologues, and we should never be. Let's do what is in our interests, and if it means moving toward freer capital mobility, let's do it intelligently, in steps.

Question: Minister Shanmugaratnam, I think your comparison of the evolution of integration in Europe and Asia provided a number of insights, which certainly made a compelling case for your conclusion that perhaps de facto financial coordination is probably the best outcome. But in terms of having a completeness in terms of the analysis, I wonder whether it would be instructive to look at the U.S. economy—not NAFTA, but just the U.S. economy. Historically, convergence or lack of it has been a problem for the United States as well, but there have been two stabilizing phenomena. One has been the high level of mobility of labor from the lagging areas to the more dynamic areas and the second has been the political will for large-scale fiscal transfers, again from the dynamic areas to the really lagging areas. So there can be stabilizers that can change the prior conditions. If there is a political will to move to Asian integration and if one comes to the conclusion that one can reduce the trade-off through these two measures; that is, you can reduce the trade-offs and make the objective of moving more quickly to monetary integration more realizable.

THARMAN SHANMUGARATNAM: I think that is a relevant economic comparison, but I don't see how Asia, with independent sovereign states, will ever be able to contemplate that. The European and NAFTA examples are very useful ones for us to study. In Europe, there was a political imperative, which doesn't exist in Asia. And I think we should avoid thinking that we need to do something dramatically different from what is already happening in our markets

and through our own actions so far in order to achieve our objectives of higher growth, lower unemployment, and low inflation.

The current situation is already moving in that direction—the current situation of de facto monetary coordination.

Question: Tharman, you seemed to suggest in your speech that a combination of floating and some kind of domestic anchor like inflation targeting was an effective framework for Asian countries, both for macroeconomic stabilization and for development. And I guess my question is: do you see any downside to this? I am thinking particularly of the case of the Reserve Bank of New Zealand, which actually invented the framework and which itself is actually questioning this framework.

THARMAN SHANMUGARATNAM: I would simply say that it is the lowest-risk and lowest-cost alternative that we have. It is not optimal in every sense. In particular, it will not help to spur the development of an Asian financial market—a common, unified bond market, for instance—the way that it happened in Europe. But given the diversity of Asia, given the costs of surrendering monetary policy autonomy of national economies, I see it as the lowest-risk path that we have.

Question: I enjoyed your presentation very much. With regard to the intermediate regime option, my impression is that you raised three options. Singapore takes a sort of a mixture of all three options. Singapore has a monetary policy based on a managed float—an exchange-rate-based monetary policy—while paying some attention to inflation, but not formal, rigid, inflation targeting. The managed float is against a basket of currency, and the basket includes not only major global currencies but regional currencies as well. In a sense, my impression is that what you are proposing for other Asian currencies is something like Singapore's exchange rate arrangement. I'm not sure if I understand your presentation perfectly.

THARMAN SHANMUGARATNAM: Well, that is not the way I would put it. [Laughter.] But it is the way it is happening, quite independently of Singapore's designs. In fact, I think this de facto solution that is happening before us will increasingly converge on what

some of the proponents of monetary integration want, because with increasing trade integration in the region, increasing commonalities of interest, increasingly facing the same economic cycles as a result of trade integration, the weights in each of our baskets that we use for a managed float will tend to converge. They will never be identical, but they will converge. And Asian currencies' weights in each other's baskets will also go up. So by virtue of that, I think we will get an increasing degree of stability among Asian currencies. But it will still preserve the flexibility needed when a shock does happen: both the markets and the authorities will have that ability to adjust the currency, and I think that's a very useful adjustment mechanism to preserve.

Question: That was a terrific analysis. One school of thought is in favor of monetary integration without reference to the political and social context. As we saw in Argentina, that can create chaos. But what can we learn from that for the euro? The euro is still a very young phenomenon. How can we ensure that social diversification in Europe cannot derail that?

THARMAN SHANMUGARATNAM: I think there are some things to be learned from Europe, particularly about financial market integration. The procedures they have set in place for cross-border supervision, the procedures they have set in place to harmonize rules and regulations for the capital markets, the greater institutionalization of what in Asia is still a very informal process of consultation and surveillance—these are important lessons that Asia can learn from Europe.

Question: Can I just add one further thing to your comparison between Asia and Europe and ask you to comment on it? Until now, the European Monetary Union has consisted, with one or two exceptions, of well-run, mature economies. But there are now waiting on the eastern wing of Europe somewhere approaching 10 emerging market economies, standing in line for what looks to many observing it to be a very difficult process indeed of coming into membership. On the one hand, they are emerging markets which, as you have said, have extremely low costs into which there is vast FDI, generating very large booms which may need quite different monetary restraint from core Europe. On the other hand,

there is increasing financial integration, which is leading to cross-border borrowing, especially by households, which in some countries is alarming.

I went to a seminar in Frankfurt given by the head of the central bank in Hungary who gave a fascinating presentation at which I stood up and said this sounded to me rather like Thailand between 1994 and 1997—not to the amusement of many people in the room. I wonder if you think that the point in Asia is that there are more emerging market economies with very great structural changes yet to come than in the monetary union of core Europe, and that this means that monetary union could not be sustained?

THARMAN SHANMUGARATNAM: Yes, I think you have expressed that point better than I did. I would add that we also want to preserve competition between social models. I think that is one of Asia's strengths; that is part of Asia's vibrancy—the fact that there will be competition between social models, and not an attempt to impose a common social model on all Asian players.

ANDREW CROCKETT: Well, thank you very much, Tharman, and thank you to the audience. I think you have given us a very thoughtful analysis of what is a very topical subject and subjected it to a degree of analytical rigor and historical perspective and some practical common sense that enables us to see some of the perhaps glib solutions that are often advocated in a more realistic light. So, let me ask the audience to join me in thanking you for a very spectacular lecture.



Tharman Shanmugaratnam

Tharman Shanmugaratnam is Minister for Education and Second Minister for Finance in the Singapore Cabinet.

Tharman spent much of his earlier professional career at the Monetary Authority of Singapore (MAS), Singapore's central bank and financial regulator, where he was the Managing Director before he entered politics in 2001. He continues to serve on the Board of MAS, and sits on the Board of the Government of Singapore Investment Corporation. He is also Deputy Chairman of the National Research Foundation.

Tharman has been Member of Parliament since October 2001. After entering politics, he was appointed Senior Minister of State in the Ministry of Trade and Industry and in the Ministry of Education. He took office as Acting Minister for Education in August 2003, and subsequently as Minister for Education in August 2004. He was appointed Minister for Education and Second Minister for Finance in May 2006. Tharman is also Co-Chairman of the Singapore-Liaoning Economic and Trade Council, which was established in 2003 to advance stronger links between Singapore and Liaoning Province, China. He is Chairman of the Ong Teng Cheong Institute of Labour Studies, and serves as a Life Trustee of the Singapore Indian Development Association.

Tharman obtained undergraduate and masters degrees in economics from the London School of Economics and Cambridge University. He later obtained a masters degree in public administration from Harvard University, where he received the Littauer Fellow award. He was awarded the Singapore Public Administration Gold Medal in 1999.

He is married to Jane Yumiko Ittogi, a lawyer.

The Per Jacobsson Lectures

- 2006 *Asian Monetary Integration: Will It Ever Happen?* Lecture by Tharman Shanmugaratnam (Singapore).
Competition Policy and Monetary Policy: A Comparative Perspective. Lecture by Mario Monti (Bern).
- 2005 *International Financial Institutions: Dealing with New Global Challenges.* Lecture by Michel Camdessus.
- 2004 *The U.S. Current Account Deficit and the Global Economy.* Lecture by Lawrence H. Summers.
Some New Directions for Financial Stability? Lecture by C.A.E. Goodhart, CBE (Zurich).
- 2003 *The Arab World: Performance and Prospects.* Lecture by Abdlatif Yousef Al-Hamad (Dubai).
- 2002 *The Boom-Bust Capital Spending Cycle in the United States: Lessons Learned.* Lecture by E. Gerald Corrigan.
Recent Emerging Market Crises: What Have We Learned? Lecture by Guillermo Ortiz (Basel).
- 2001 No lecture took place due to the cancellation of the Annual Meetings of the IMF and the World Bank.
- 2000 *Ten Years On—Some Lessons from the Transition.* Lecture by Josef Tošovský (Prague).
Strengthening the Resilience of Financial Systems. Symposium panelists: Peter B. Kenen, Arminio Fraga, and Jacques de Larosière (Lucerne).
- 1999 *The Past and Future of European Integration—A Central Banker's View.* Lecture by Willem F. Duisenberg.
- 1998 *Managing the International Economy in the Age of Globalization.* Lecture by Peter D. Sutherland.
- 1997 *Asian Monetary Cooperation.* Lecture by Joseph C.K. Yam, CBE, JP (Hong Kong SAR).
- 1996 *Financing Development in a World of Private Capital Flows: The Challenge for International Financial Institutions in Working with the Private Sector.* Lecture by Jacques de Larosière.
- 1995 *Economic Transformation: The Tasks Still Ahead.* Symposium panelists: Jan Svejnar, Oleh Havrylyshyn, and Sergei K. Dubinin.
- 1994 *Central Banking in Transition.* Lecture by Baron Alexandre Lamfalussy (London).
Capital Flows to Emerging Countries: Are They Sustainable? Lecture by Guillermo de la Dehesa (Madrid).
- 1993 *Latin America: Economic and Social Transition to the Twenty-First Century.* Lecture by Enrique V. Iglesias.
- 1992 *A New Monetary Order for Europe.* Lecture by Karl Otto Pöhl.
- 1991 *The Road to European Monetary Union: Lessons from the Bretton Woods Regime.* Lecture by Alexander K. Swoboda (Basel).
Privatization: Financial Choices and Opportunities. Lecture by Amnuay Viravan (Bangkok).
- 1990 *The Triumph of Central Banking?* Lecture by Paul A. Volcker.

- 1989 *Promoting Successful Adjustment: The Experience of Ghana*. Lecture by J.L.S. Abbey.
Economic Restructuring in New Zealand Since 1984. Lecture by David Caygill.
- 1988 *The International Monetary System: The Next Twenty-Five Years*. Symposium panelists: Sir Kit McMahon, Tommaso Padoa-Schioppa, and C. Fred Bergsten (Basel).
- 1987 *Interdependence: Vulnerability and Opportunity*. Lecture by Sylvia Ostry.
- 1986 *The Emergence of Global Finance*. Lecture by Yusuke Kashiwagi.
- 1985 *Do We Know Where We're Going?* Lecture by Sir Jeremy Morse (Seoul).
- 1984 *Economic Nationalism and International Interdependence: The Global Costs of National Choices*. Lecture by Peter G. Peterson.
- 1983 *Developing a New International Monetary System: A Long-Term View*. Lecture by H. Johannes Witteveen.
- 1982 *Monetary Policy: Finding a Place to Stand*. Lecture by Gerald K. Bouey (Toronto).
- 1981 *Central Banking with the Benefit of Hindsight*. Lecture by Jelle Zijlstra; commentary by Albert Adomakoh.
- 1980 *Reflections on the International Monetary System*. Lecture by Guillaume Guindeg; commentary by Charles A. Coombs (Basel).
- 1979 *The Anguish of Central Banking*. Lecture by Arthur F. Burns; commentaries by Milutin Ćirović and Jacques J. Polak (Belgrade).
- 1978 *The International Capital Market and the International Monetary System*. Lecture by Gabriel Hauge and Erik Hoffmeyer; commentary by Lord Roll of Ipsden.
- 1977 *The International Monetary System in Operation*. Lectures by Wilfried Guth and Sir Arthur Lewis.
- 1976 *Why Banks Are Unpopular*. Lecture by Guido Carli; commentary by Milton Gilbert (Basel).
- 1975 *Emerging Arrangements in International Payments: Public and Private*. Lecture by Alfred Hayes; commentaries by Khodadad Farmanfarmaian, Carlos Massad, and Claudio Segré.
- 1974 *Steps to International Monetary Order*. Lectures by Conrad J. Oort and Puey Ungphakorn; commentaries by Saburo Okita and William McChesney Martin (Tokyo).
- 1973 *Inflation and the International Monetary System*. Lecture by Otmar Emminger; commentaries by Adolfo Diz and János Fekete (Basel).
- 1972 *The Monetary Crisis of 1971: The Lessons to Be Learned*. Lecture by Henry C. Wallich; commentaries by C.J. Morse and I.G. Patel.
- 1971 *International Capital Movements: Past, Present, Future*. Lecture by Sir Eric Roll; commentaries by Henry H. Fowler and Wilfried Guth.
- 1970 *Toward a World Central Bank?* Lecture by William McChesney Martin; commentaries by Karl Blessing, Alfredo Machado Gómez, and Harry G. Johnson (Basel).
- 1969 *The Role of Monetary Gold over the Next Ten Years*. Lecture by Alexandre Lamfalussy; commentaries by Wilfrid Baumgartner, Guido Carli, and L.K. Jha.

- 1968 *Central Banking and Economic Integration*. Lecture by M.W. Holtrop; commentary by Lord Cromer (Stockholm).
- 1967 *Economic Development: The Banking Aspects*. Lecture by David Rockefeller; commentaries by Felipe Herrera and Shigeo Horie (Rio de Janeiro).
- 1966 *The Role of the Central Banker Today*. Lecture by Louis Rasminsky; commentaries by Donato Menichella, Stefano Siglienti, Marcus Wallenberg, and Franz Aschinger (Rome).
- 1965 *The Balance Between Monetary Policy and Other Instruments of Economic Policy in a Modern Society*. Lectures by C.D. Deshmukh and Robert V. Roosa.
- 1964 *Economic Growth and Monetary Stability*. Lectures by Maurice Frère and Rodrigo Gómez (Basel).

The Per Jacobsson lectures are available on the Internet at www.perjacobsson.org, which also contains further information on the Foundation. Copies of the Per Jacobsson lectures may be acquired without charge from the Secretary. Unless otherwise indicated, the lectures were delivered in Washington, D.C.

The Per Jacobsson Foundation

Founding Honorary Chairmen: Eugene R. Black
Marcus Wallenberg

Past Chairmen: W. Randolph Burgess
William McC. Martin
Sir Jeremy Morse
Jacques de Larosière

Past Presidents: Frank A. Southard, Jr.
Jacques J. Polak

Founding Sponsors

Hermann J. Abs	Viscount Harcourt	Jean Monnet
Roger Auboin	Gabriel Hauge	Walter Muller
Wilfrid Baumgartner	Carl Otto Henriques	Juan Pardo Heeren
S. Clark Beise	M.W. Holtrop	Federico Pinedo
B.M. Birla	Shigeo Horie	Abdul Qadir
Rudolf Brinckmann	Clarence E. Hunter	Sven Raab
Lord Cobbold	H.V.R. Iengar	David Rockefeller
Miguel Cuaderno	Kaoru Inouye	Lord Salter
R.v. Fieandt	Albert E. Janssen	Pierre-Paul Schweitzer
Maurice Frère	Raffaele Mattioli	Samuel Schweizer
E.C. Fussell	J.J. McElligott	Allan Sproul
Aly Gritly	Johan Melander	Wilhelm Teufenstein
Eugenio Gudín	Donato Menichella	Graham Towers
Gottfried Haberler	Emmanuel Monick	Joseph H. Willits

Board of Directors

Sir Andrew D. Crockett — *Chairman of the Board*

Abdlatif Y. Al-Hamad	Malcolm D. Knight
Nancy Birdsall	Horst Köhler
Michel Camdessus	Edwin M. Truman
E. Gerald Corrigan	Leo Van Houtven
Rodrigo de Rato	Marcus Wallenberg
Shigemitsu Sugisaki	

Officers

Leo Van Houtven — *President*
Graham Hacche — *Vice-President and Secretary*
Chris Hemus — *Treasurer*