

***ASSISTANCE TO THE MINISTRY OF FINANCE ON THE
ESTABLISHMENT OF AN AGENCY FOR RESEARCH IN
ECONOMIC AND FINANCIAL POLICIES AND
INTERNATIONAL COOPERATION***

Rudolph G. Penner
The Urban Institute
Subcontractor to BIDE
April 9, 2004



**GROWTH THROUGH INVESTMENT,
AGRICULTURE AND TRADE (GIAT)***

A USAID/GOI Project

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* GIAT is a United States Agency for International Development (USAID)-funded Project with the Government of Indonesia. The views expressed in this report are those of the author's and not necessarily those of USAID, the U.S. Government or the Government of Indonesia.

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Executive Summary

As part of a more fundamental reorganization of the Ministry of Finance, a new policy office will be created. When it is mature, it will have wide ranging responsibilities to do analysis in all areas of policy interest to the Ministry of Finance. The work of the office will involve macro analysis, the evaluation of revenue (tax and non-tax) and spending policies, monetary policy, debt management and capital markets, regional issues, regulation, and international policy issues.

Key recommendations for an ideal policy office:

1. Given a limited supply of good policy analysts the office should be small in the beginning -- perhaps containing no more than 20 principal analysts.
2. Their main function should be to provide quick responses on policy issues as they arise.
3. They should also be given the task of developing their component of the policy unit to perform more comprehensive, specialized analyses in the longer term.
4. Foreign technical assistance at the inception would be extremely productive both in responding to policy questions from the Minister and in providing advice on the long run development of an expanded policy office.

The most important role for policy offices around the world is to knock down very bad ideas quickly. This will remain the most important role for the policy office even after there is capacity for more comprehensive research. As that capacity grows, the office can work on more subtle improvements in policy. Research reports often do not have an immediate influence on policy. Their conclusions generally have to be substantiated by other studies, but then they can have a very profound effect.

The scarcity of talented analysts poses the most important challenge faced in developing the office. International assistance can be extremely valuable in providing formal and on the job training. International agencies may also consider providing assistance in model development and data collection techniques.

The existing plan – The Agency for Research in Economic and Financial Policies and International Cooperation

The new office may not be able to start out small and will need to absorb large numbers of staff from other branches of the Ministry of Finance. Some of these people have neither the desire nor the ability to be policy analysts. The central concern is that these people and functions have to be managed diluting the focus and effort to develop a high quality policy office.

Key Recommendations:

1. If the decision to move such people into the new office can be changed, it should be.
2. If the decision cannot be changed, the unsuitable people should be assigned to doing the same tasks as previously and they should be organized separately. The unit could be managed by the Secretary of the Policy Office who would also be given the task of providing administrative support to the overall office.
3. The rest of the unit would operate as close to the ideal as possible.

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Background

The Ministry of Finance of the Government of Indonesia is being reorganized. The new organization will establish a Treasury and will facilitate a planned move to a unified budget and budget office. The Ministry will, at the same time, create an office for policy analysis. This report will first discuss the ideal organization for such an office. However, the ideal may not be attainable because of decisions already made. The report will, therefore, go on to discuss how losses can be minimized as the organization departs from the ideal. The report will then describe the tasks of a mature policy office, the type of personnel required, and their analytic tools. It will conclude by suggesting areas in which technical assistance from USAID or other donors may be productive in both the short and long run.

Establishing the Office

Because the supply of good policy analysts is limited in Indonesia, the office should begin very small. The head of the office should give highest priority to gathering together a group of talented individuals who are capable of responding to the requests of the Minister very quickly. Experience indicates that as few as 20 analysts can have a major beneficial impact on policy. To the extent possible, especially during the early years, the group should be supplemented by technical assistance.

Personnel should be chosen on the basis of their skill as policy analysts and not because they have a certain specialty. A well-trained skilled analyst can pick up a new specialty very quickly. Once assigned a specialty the key analysts should be also be charged with increasing the capacity of their units to do longer-run, more detailed research as new talented personnel comes available.

Initially, much of the time of the office will be devoted to knocking down bad ideas. Bad ideas tend to proliferate in government. They generally come from special interest groups or from people totally untrained in policy analysis. They can generally be countered with a minimum of analysis that does not require fancy models or mounds of data. The policy group will lose many of these battles because bad ideas often appear highly seductive to the layman. But they should win enough to maintain their morale and continue to attract good people to the office.

The staff will have to work very hard in the beginning both to serve the policy needs of the Minister and to develop their units into more mature research operations. The Minister should devote some of his very limited time to maintaining the morale of

the group by making comments on memos and interacting with analysts when he has questions. However, this will probably not require any special effort. The group is likely to prove so valuable that it gets more interaction than it needs.

As the office evolves and it produces more sophisticated research, the nature of its influence will change. It will spend less of its time knocking down bad ideas and more time in the positive role of promoting better policies and helping to shape the national agenda. It should not, however, expect its research reports to always have a profound policy impact. Research studies often do not have influence until their results are confirmed by other studies. But once new conclusions gain wide acceptance the results can be earth shaking. As Keynes remarked, “the (policy) world consists of little else.”

The Agency for Research in Economic and Financial Policies and International Cooperation

Unfortunately, the new policy office may not be able to begin small. It may have to absorb 200-300 people from other areas of the Ministry. Some people slated to shift to the new office are now doing administrative work and they have neither the desire nor the skills to do policy analysis. This appears to be the problem with people now working on issues concerning regional government. Others now employed in doing policy analysis do not wish to shift to the new office. Some of these experts now work on tax policy and will probably continue to do so.

Having competing policy analyses is not all bad, even though it seems superficially to involve some duplication. Differences in assumptions, techniques, and in data used can have a large impact on results and all else equal, it is useful for senior policy makers to know that. Unfortunately, it is a luxury that is harder to afford when the supply of qualified policy analysts is limited.

However, a much more serious problem involves moving people into the policy unit who do not want to be there and who should be doing something else. Managing them will distract from the main roles of the office -- providing good policy analysis and building research capability for the future.

If the decision to absorb all these people can be reconsidered, it should be. If it is in concrete, the people unsuited for a policy role should be put in a separate unit managed by the Agencies Secretary. They should continue to do the tasks performed in their old jobs and they can be given the additional task of providing administrative support for the overall policy office. In the long run, they might be moved elsewhere in the Ministry or elsewhere in the government.

The Tasks of the Office

Even after the new policy office matures, it will only be able to consider a small portion of the total universe of potential policy issues each year. Therefore, it is important for the head of the office to carefully plan a list of priorities for the approval of the Minister of Finance while being prepared to respond to unanticipated crises.

Macroeconomic Forecast and Aggregate Budget Projections -- All policy analysis must begin with economic and technical assumptions. The first step in the process is to develop a macroeconomic forecast that provides the macro assumptions necessary to predict budget revenues, outlays and the budget balance. The Budget Office will use the assumptions to prepare budget projections for current policy and for the effects of any policy changes recommended by the government. Indonesia projects detailed budget data for three years and that is about as far out as the budget balance can be forecast with any confidence. Very long-run forecasts can be developed to provide assumptions for the long-run effects of specific policy changes, but they need not be given the same prominence as the shorter run assumptions underlying the development of aggregate budget targets.

Policy makers should also be provided with an analysis of typical forecast errors, so that they can discuss the implications of budget outcomes that may occur if the economy performs much worse or better than anticipated. The policy office will also provide monthly reports on how the macroeconomy is evolving.

Under the implementing regulations for the State Finance Law BAPPENAS is tasked with developing a first draft of the macro forecast and budget parameters. It will then discuss it with the Ministry of Finance (who will have their estimates) and develop a consensus that will be used to make budget estimates and to provide assumptions for other policy analyses. Macro forecasters have traditionally sought input from business and academic economists -- obviously a highly desirable practice.

Monetary Policy, Banking, and Capital Markets -- An analysis of monetary policy is crucial to the development of a macroeconomic forecast. The unit may also do analyses relevant to the regulation of banking and capital markets, including policies furthering privatization. The policy office will develop supporting materials for occasions when the Ministry of Finance is representing the government at international meetings on these topics.

Tax Policy Analysis -- To the extent possible the office must analyze the effects of tax policy changes on budget revenues, the allocation of the nation's resources, and the distribution of income. For this purpose, it will have to forecast responses to tax policy changes by households, businesses, and lower level governments. If there is reason to believe that the long-run impact of a policy differs significantly from the short-run impact, that will have to be pointed out. For example, an acceleration of depreciation deductions has the effect of postponing revenue collections, thus making the short-run revenue loss greater than the long-run loss.

The government may find it useful to have the office analyze "tax expenditures", that is to say, estimate the revenue losses, resource allocation effects, and distributional impact of those special tax credits, exclusions, and deductions designed to attain specific social and economic goals. This is a time consuming task and I would not envision developing the comprehensive list of tax expenditures available in the United States. However, such analysis is important where there is a suspicion that a particular tax expenditure is highly ineffective or unfair.

Policy Analysis of Expenditure Programs -- Significant program initiatives will have to be studied in the same way as tax policy changes. Similarly, a few existing

programs should be selected for detailed analysis each year to see if they are accomplishing their announced goals. The office could also provide training in policy analysis for those working on budget preparation at the budget office and/or Bappenas who will be scrutinizing particular spending programs and for those experts within agencies who will be proposing new policy initiatives.

Debt Management Policies -- Debt management is to be the responsibility of the new Treasury. Nevertheless, one can imagine the Minister requesting the policy office to provide independent analyses of internal and external debt management practices and especially their macroeconomic consequences.

The Benefits and Costs of Regulation -- Regulation is often used to reallocate economic resources that could be reallocated just as well using tax and expenditure policy. However, the costs of regulatory policies tend to be less transparent than the costs of budget policies. It is, therefore, important to scrutinize them as carefully as possible.

It is particularly important to analyze regulation that creates uncompensated costs for lower level governments. The legislatures of central governments around the world often find it difficult to avoid the temptation to push costs down to lower levels of government.

Regional Issues -- The policy office will have to analyze the incentives for lower level governments created by the existing grant structure and by possible reforms. It will study the revenue capacity of lower level governments and monitor their activities. It will also track their debt issues and may analyze their debt management practices. It might, along with the budget office, also provide technical assistance for policy evaluation and the preparation of budgets.

International Trade and Finance Issues -- The office is likely to house the secretariat for Team Tariff, the inter-ministry group that advises on tariff policy. It will also have to advise on policies affecting capital flows and on policies toward multilateral financial institutions.

Personnel

The typical policy analyst is an economist with a Ph. D. or MA. However, an office doing policy analysis may also contain a few lawyers, accountants, and other social scientists. As academic Ph.D. programs in economics have become more abstract, an economics Ph.D. sometimes requires some retraining to become a good policy analyst. Public policy schools have stepped in to fill the void and generally provide just the right skills for policy analysis. Those schools that have a quantitative orientation are particularly good. They typically train the student in manipulating large data bases and more generally produce students that are adept in using the computer and exploiting the information available on the web.

The analysts will have to be backed up by research assistants (RAs), computer personnel (techies) and administrative support. RAs typically have BAs in economics or related fields. Although an office might get by with less than one RA for each principal researcher, it is an area where it is useful to build in some redundancy. RAs

often become the policy analysts of the future. They very often find the work to be interesting and stimulating and after a couple of years go off to graduate schools for further training in policy analysis. Policy offices should be sensitive to the fact that RAs form a “farm team”, and if possible, provide them with interesting seminars and training opportunities.

The optimum ratio of computer experts to researchers will depend very much on the exact nature of the tasks performed by the researchers. Past experience with the policy analysis function in Indonesia should be useful in determining the desired ratio for the new policy office, but the required number of computer experts will tend to grow through time as computers become more complex and there is a growing number of mischief makers who would like to hack in and create viruses.

The computer has allowed the typical office to greatly reduce the number of secretaries and other administrative personnel for each researcher. Because nonprofessional salaries are relatively low in Indonesia, Indonesian norms should rule in making such decisions rather than the norms in richer countries.

The quality of the personnel attracted to the policy office will be determined, in large part, by compensation levels. While compensation policy will be limited by civil service rules, any flexibility that can be gained for star performers will be very useful.

Although compensation is extremely important, it is not the only factor considered by existing and potential employees. The typical policy analyst wants very much to believe that he or she is making a difference to public policy. Having access to senior policy makers and knowing that they are considering the policy analyst’s advice is very important, even though a sophisticated policy analyst knows that they are not likely to win a large portion of policy battles in the world of politics. Those few that they do win, however, pay the expenses for running such an office many times over.

A stable core of competent researchers with considerable institutional memory is, of course, important to the efficient functioning of a policy office. However, the organization should not worry if, after a few years, many researchers use the knowledge gained in the public sector to move to higher paying jobs in the private sector. Knowing that this opportunity exists will attract young, good people to government and turnover is also useful for its own sake. New blood brings with it new methodological techniques and reduces the very strong natural tendency for a policy office to become as bureaucratized as other offices in government.

Access to new techniques can also be provided by bringing in visiting researchers from academic institutions or think tanks for one or two years. Visitors from consulting firms and businesses might also be considered, but that is more likely to raise conflicts of interest.

Studies can be contracted out to consulting firms, think tanks, academic institutions, and individuals. This works best for policy issues of longer-term interest and generally does not work well for evaluating a policy change being considered for the current budget year. That is because timeliness is vitally important for the latter and timeliness is often difficult to impose on outside researchers. A study of interest to the long-term that is contracted out might involve things like an analysis of the

effectiveness of various tax incentives for investment or saving, or the adequacy of government pensions 20 years from now, or the effectiveness of certain education initiatives.

In the beginning, it would be extremely useful to bring expatriate researchers into the office. They will be a ready source of talent and through a process of “learning through doing” can assist local analysts to hone their skills.

Analytic Modeling Tools and Data

The first step in making a macroeconomic forecast often involves examining the results of running a multi-equation macroeconomic forecasting model. Such models have been severely criticized by academics in recent decades. It is argued by rational expectation theorists that the structure of the economy is constantly changing and in particular that the reaction to future policy initiatives can be changed by people learning more about the effects of similar past policy initiatives. It is, therefore, futile to try to estimate the parameters of a model that assumes that the structure of the economy and the behavior of economic actors remain unchanged.

There is much truth to this critique, but no forecaster with policy responsibilities would simply run an econometric model and accept the results without introducing a large number of judgmental modifications. A multi-equation model allows one to introduce such judgments in a disciplined manner, because the model contains a number of accounting identities that must be satisfied. It is more difficult to introduce judgment when using statistical techniques advocated by rational expectations theorists. These techniques include vector auto regression analysis and other techniques for analyzing time series. I have not found these techniques to be useful in the United States.

There is, of course, no harm done in trying them along with econometric models if one has the time and other resources. They may do relatively better in an economy with lower quality data.

Nevertheless, forecasters will find it practically necessary to continue to rely primarily on macroeconomic forecasting models. It is also extremely useful to run forecasts through equation systems that consist entirely of identities. This does not insure that a forecast is accurate, but it does insure that a forecast is logical.

For tax policy analysis, micro tax models are extremely useful. Such models are typically based on a sample of business or individual tax returns. They do not contain behavioral equations that estimate the effect of tax policy changes on work effort, investment, or the saving-consumption decision, but they provide a first estimate of the revenue and distributional effects of a tax policy change. Extensive analysis for the U.S. Congress by the Joint Committee for Taxation and the Congressional Budget Office has shown that revenue estimates are not changed dramatically by introducing behavioral considerations. Indeed, the analysis can indicate either higher or lower revenues than the initial results from the micro model, depending on the assumed response of spending and the monetary authorities to the tax change, as well as on assumptions regarding how far individuals and businesses look into the future.

Complex tax, entitlement, and tariff changes can also be analyzed using computable general equilibrium (CGE) models. These are multi-equation models that contain many behavioral equations. They generally embed an input-output model that allows the model to estimate the effect of the policy change on individual industries. Typically, the parameters used in the equations are based on the researchers judgment gleaned from a review of the empirical literature and not from statistical estimates done for the express purpose of building the model.

CGE models are expensive to build and maintain. They generally compare the very long run results of the new policy to the existing situation. It is very awkward to use them for describing the path from the status quo to the long-run solution. Policy makers tend to be extremely interested in the characteristics of such transition paths. I would not give high priority to the construction and maintenance of such models.

Policy analysts consume large volumes of data. Some is collected by the central statistical office and it is obvious that such an office should not be starved of resources. This is easier said than done, because government statisticians have few lobbyists arguing on behalf of their budget. There always seem to be more pressing priorities. One approach to supplementing the budget of the statisticians is to give the policy office sufficient budget to contract with the central statistical office where they would like additional questions attached to surveys or to finance other initiatives to improve the quality and timeliness of the data.

Much of the data used by policy analysts is generated by the operation of programs and comes from administrative agencies. It is always a struggle to get agencies to collect such data in a useful form and to provide it in a timely manner, especially if the data might show that their programs are not working well. Data on tax collections and payments to individuals also raise sensitive questions of confidentiality. Researchers in the new policy office should be empowered to demand such data, providing that techniques for preserving confidentiality can be worked out.

The above remarks on modeling are more relevant to the operation of a mature office than to the initial organization of 20 or so policy analysts. The initial organization will, however, have to have access to micro tax (and customs) data as well as administrative data from spending agencies.

Possible Technical Assistance from USAID and Other Donors

Training -- The most severe restraint in developing a policy office is the limited supply of able policy analysts. It is an area in which training programs can provide a high value added for people already trained in economics or in other social sciences.

The director of an office always faces a dilemma. He would, of course, like his people to be better trained, but training takes time and a good policy office will place such intense demands on its best people that it is very costly to allow them to go away for training. Short training courses provide a practical answer and very valuable short courses have been developed by the IMF. Their space is limited and USAID has, in the past, also developed short courses relevant to policy analysis. It may be able to contract with a U.S. public policy school to provide such a course. It would be cheaper to do it in Indonesia, although USAID may wish to make it available to other nations.

Supporting able, recent BAs to do a full MA course in a U.S. public policy school should also be considered. RAs working already in the Ministry of Finance or other agencies would often be particularly desirable candidates.

Foreign Technical Assistance -- Expatriates can be extremely valuable in the initial stages of developing the policy office. They can be part of the core staff designed to provide quick responses. They can aid in the development of specialized units for the longer term.

There is a special need involving micro analysis of spending issues. The deficiency seems more severe with regard to the current operating budget than it is with regard to capital projects. It was not possible during the brief consultancy to study the system of evaluating current expenditures. This situation will undoubtedly improve as Indonesia moves to a unified budget, but it is suggested that bringing someone in with evaluation experience on the spending side of the budget may be very useful.

Model building and data collection – It was also not possible to assess the quality of the models now available to Indonesian analysts. GIAT can be guided by their advice as to the value of bringing in outside experts to work on improving the models. This type of technical assistance focused on well-defined projects involving services that can be provided by many U.S. firms.

The highest priority in the modeling area should be to provide assistance in improving micro modeling efforts, especially those that would aid the analysis of individual and business tax issues. It is also suggested that one investigate whether there is any desire to develop micro simulation models for entitlement programs on the spending side of the budget. Such a model may be useful if, for example, there was likely to be a lot of work in the future on Social Security reform. One also needs to look at the macro forecasting models that are currently being used to see if there is any need or desire for improvement. Analysts seem pretty satisfied with the models as they are now structured. As noted above, improving the quality of CGE models would be far down the list of priorities.