

Economic Insecurity in the Malaysian Context

Lars Osberg
Economics Department
Dalhousie University

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Abstract

The abrupt end of rapid economic growth in Malaysia has created a new mood of insecurity. However, “economic insecurity” is rarely discussed in the professional economics literature and has received little emphasis in recent economic policy making in OECD nations. This paper argues that economic insecurity should receive more attention, because it affects social and political stability, and influences individual well-being, personal identity and labor market behavior. As well, the welfare state was largely motivated by a desire to decrease insecurity, but Malaysia has not put in place unemployment insurance or welfare programmes to mitigate economic insecurity. The paper discusses the differences between “economic insecurity” and “risk”, before turning to a discussion of how best to measure economic insecurity.

1. Introduction

The sudden end to economic growth in 1997, the events in neighbouring countries and the continuing recession have all combined to create a profound level of anxiety about the economic future in Malaysia. However, economic insecurity is not unique to South East Asia. If one reads the popular press,¹ or examines public opinion polls, or talks to one's neighbours, it is hard to escape a concern with rising levels of economic insecurity in the 1990s in many Western economies. Referring to the US, *Fortune* has argued that: "Today, a queasy sense of insecurity haunts many working people. Wave after wave of corporate restructuring has knocked away the underpinnings of career-long employment that sustained workers' confidence in their future"[Richman:1995,107] The business press has repeatedly suggested that a change in workplace culture in the 1990s has produced increased insecurity. As Trinca (1998:E2) puts it: "At the core is a change in the philosophy of the deal between an employer and the employee...The message to employees is that employers see them as dispensable resources, that they are assets to be used for the duration of the employer's needs, and "if a new model comes out you could find yourself obsolete" ...It is the moving goal posts that bother people: the notion of justifying yourself constantly to your boss simply didn't exist for most people 20 years ago".

These journalistic accounts of workplace change² are consistent with polling data on the prevalence of subjective feelings of economic insecurity. In repeated polls throughout the 1990s, only a minority of Canadians have, for example, been willing to disagree with the statement: "I feel that I have lost all control over my economic future" (emphasis added – see EKOS³). As well, industrial relations specialists have noted that job security provisions have been at the centre of collective bargaining in many countries, as workers have sought protection from the personal implications of labour market "flexibility". And since no one has a stronger vested interest in reading the public mood than an opposition politician, some election slogans now promise an end to insecurity – (e.g. "Security and Opportunity" - Australian Labor Party, 1998).

However, although economic insecurity is widespread, there has been little response in economic policy. In Malaysia, there is no system of unemployment insurance

1 Dominitz and Manski begin their article summarizing polling data on insecurity with the statement: "During the first few months of 1996, economic insecurity became a focus of media attention in the United States"(1997:262).

2 Case studies of a cross section of Canadian firms reveal the same pattern – see Osberg et al (1995).

3 EKOS Research Associates has repeatedly asked a sample of Canadians to agree or disagree with the statement "I feel I have lost all control over my economic future." Although this must be considered a toughly worded statement, the percentage agreeing was 52% in October 1993, 43% in February 1994, 47% in November 1994 and 48% in August 1995. In April 1996 42% agreed. (A further 16% neither agreed nor disagreed in April of 1996 - leaving only 42% of Canadians who were willing to say that they felt they had control at all over their economic future). The percentage agreeing with the statement, "I think there's a good chance I could lose my job in the next couple of years" was, at the last four dates, 41%, 42%, 44% and 44%. EKOS Research Associates (1996:82, 84).

to cushion the impact of the recession and no announced plans to establish one. In Western countries these concerns about rising economic insecurity are also curiously disconnected from the thrust of much current economic policy. In its 1995 Jobs Study, the OECD asked: "Does the present situation call for any change in the medium-term strategy of sound public finances, low inflation and structural reform which was agreed by OECD member countries in the first half of the 1980s?" (P.59). The answer provided (i.e. "No" - the high unemployment of the last 15 years is just coincidental) may not be entirely convincing, but the thrust of policy has been clear. As the OECD has said: "For over a decade, OECD countries have been committed to a cluster of policies aimed at encouraging macroeconomic stabilisation, structural adjustment and the globalization of production and distribution." (OECD, 1997, Foreword)

Unfortunately, the practical meaning of "structural adjustment", and of policy measures to increase "labour market flexibility", has often been to increase the probability that some workers will lose their jobs and, in western countries, to decrease the social transfers that they receive when not working. The acceleration of computer based technological change in the 1990s would, in any event, have increased the risks of job loss. However, there has also been an international trend to reducing the social protections of the welfare state, in those countries where unemployment insurance and social assistance historically provided a buffer which partially replaced lost earnings. In addition, globalization has increased the exposure of firms and workers to the shifting currents of international trade, but national governments are increasingly constraining themselves by new treaty obligations which preclude macroeconomic or trade policy interventions to protect domestic employment. The combination of an increased rate of labour market change and decreased protections from the adverse consequences of change has inevitably produced greater economic insecurity.

In the Malaysian context, the sudden end of several decades of rapidly increasing living standards has been particularly important. Malaysia has not experienced a decline in aggregate output in the last thirty years (although economic growth slowed substantially in 1975 and 1985/86, it remained positive). Most Malaysians have therefore never personally experienced anything but a booming labour market, in which unemployment has been low, and the ready availability of potential jobs provides an important source of personal security. One could argue that if an economy can grow forever at 7% to 8% per annum, the social protections of unemployment insurance and social assistance are not needed by most citizens. However, the situation changes dramatically when a severe - and probably long-lasting - recession strikes.

The fact remains that Malaysia did not introduce such programmes (at a time when it would have been relatively inexpensive to do so), and that many countries with these programmes have reduced their coverage and generosity in recent years. Why has economic policy paid so little attention to economic insecurity? Is it: (1) because economic insecurity is unimportant, or (2) because popular perceptions of increased

economic insecurity are wrong, or (3) because economists do not know how to think about economic insecurity?

Although the operation of any economy will always produce some level of economic insecurity, and although people clearly view economic insecurity as important, if one reads the academic economics literature, one will almost never find mention of this term⁴. It is clear that economists have often been concerned with “risk”⁵ However, “risk” is not the same as “insecurity”⁶, and it is important to be clear about the differences.

The plan of this essay is to begin in Section 2 by asking: “Why might economic insecurity matter?” Section 3 then asks what exactly is meant by the term “economic insecurity”, as distinct from risk. Section 4 considers how the economic insecurity of individuals can sensibly be aggregated so that trends in the overall level of “economic insecurity” in society can be measured. Section 5 is a conclusion.

4 To be precise, in the ECONLIT database from 1969 to December 1997, there are nine matches to the term “economic insecurity”. A search of the Social Sciences Index from 1983, and the PAIS International and PAIS Periodicals/Publisher Index from 1972, yielded eleven matches. The Social Sciences Citation Index for the years 1987-1997 was similarly unproductive.

5 In the ECONLIT CD-ROM data base, entering the keyword “risk” produces 12936 matches in the professional economics literature published between 1969 and December 1997.

6 Anxiety is a key part of insecurity – see Section 4 – but those who can avoid risk, or who can purchase insurance against risk, have no reason to feel anxious about the future. In modern economies, a wide range of insurance and risk avoidance strategies are potentially available to individuals. Whether or not these strategies actually succeed in avoiding unwanted risk, and at what cost, will determine whether people feel “insecure”. It may be a telling comment on the perspective of economists that in the ECONLIT data base, there is no match at all to a pairing of the keywords “risk” and “anxiety”.

2. Why might “economic insecurity” matter?

One reason to think that economic insecurity might “matter” is the fact that many governments have spent a lot of money, over many years, to reduce it. Increasing the economic security of the populace has been a major goal of the welfare state, which has produced substantial levels of public expenditure in all developed economies. Indeed, Article 25 of the United Nations’ Universal Declaration of Human Rights (1948) declared economic security to be a basic human right:

Everyone has the right to a standard of living adequate for the health and well-being of himself and of his family, including food, clothing, housing and medical care and necessary social services, and the right to security in the event of unemployment, sickness, disability, widowhood, old age or other loss of livelihood in circumstances beyond his control.

From the origins of the welfare state in Bismark’s Germany to the present day, in most of the industrialized countries, the expenditures of “social insurance” programmes have considerably exceeded expenditures under means tested programmes.⁷ Most of the expenditures of the welfare state have not redistributed resources from the rich to the poor, considered in an *ex ante* lifetime sense. Rather, “social insurance” programmes have redistributed between contingencies, by providing benefits, in cash or in services, to all eligible beneficiaries who experience a specific loss, or who meet specified criteria.

For example, public health insurance provides benefits, to those who become ill, in the form of health care services, irrespective of the income levels of patients. Cash transfer programmes, such as old age pension, workers compensation and unemployment insurance⁸, pay benefits to those who become elderly, have workplace accidents or become unemployed. In most countries, the benefits obtainable under such programmes are calculated as a fraction of prior earnings and are not means tested, which ensures that these programmes yield significant benefits to the previously affluent. [Australia is a notable exception, because of its means tested unemployment benefits and seniors’ pensions.] Because social insurance programmes have been much larger than programmes that are targeted exclusively on the poor, most of the cash transfers of the welfare state have redistributed income between different years of the same individual’s life, or between the different contingencies which may befall similar individuals.

⁷ In Canada, total expenditure under social assistance was \$15.898 billion in 1994/95, compared to \$51.9 billion paid out as under public health insurance, \$19.761 billion in CPP/QPP pensions and \$15.041 in Unemployment Insurance benefits. Although these latter programmes are not means tested, they do redistribute income and they do prevent poverty, because of (1) differential probability of claim (e.g. the higher probability of unemployment among lower wage workers), (2) some features of programme benefit schedules and (3) the fact that their benefits are a larger fraction of lower incomes. Social insurance programmes provide greater relative benefits to the poor than to the rich – but that is not the main *purpose*.

⁸ In the UK and Australia, unemployment benefits are a flat rate, adjusted for family size.

The broad term “social insurance”, and the specific events enumerated in the UN Universal Declaration of Human Rights, include some very different types of “risk”, with different rationales for public involvement. Sickness, disability and widowhood may be reasonably supposed to be exogenous hazards to which individuals are involuntarily exposed, and the moral rationale for state involvement is that these events correspond to “loss of livelihood in circumstances beyond one’s control”. However, it is also clear that these are insurable risks, for which private sector markets exist⁹ – even if the cost and availability of such insurance may be less than actuarially fair.

On the other hand, unemployment insurance is not generally available at all in the private sector. Unemployment is a risk that, due to the possibility of self – selection of insurance purchasers and the correlation of claims in recessions, cannot feasibly be privately insured. The practical rationale for public provision is, therefore, that individuals would otherwise have no insurance at all against loss of earnings. However, economists have also long debated the extent to which individuals can control their own experiences of unemployment¹⁰ - to the extent that unemployment is in fact “voluntary”, the case for public provision of unemployment insurance may be weakened.

Finally, although old age security is a major area of public expenditure, it is clear that “old age” is not a “risk” at all. Lower living standards in old age (because of inadequate savings or a lack of pension rights from prior employment) are a compound risk, influenced by a myriad of individual decisions and events, but old age itself is entirely predictable.

Nevertheless, although these are very different sorts of risks, the objective of greater economic security has often been identified as the common element underlying the social insurance programmes of the welfare state. Since Malaysia has not implemented such key elements of the welfare state as unemployment insurance, social assistance, public health insurance or a fully comprehensive public pension system, it is of interest to enquire why other nations did so. Moss, for example, argues that from the first years of labour legislation in the United States, reform organisations such as the American Association for Labour Legislation “were motivated primarily by the problem of worker insecurity”(1996:2). As the US shifted with dramatic rapidity from rural agriculture to urban industry in the late nineteenth century, workers lost access to established networks of social support in rural communities, as well as leaving behind the possibility of return to subsistence agriculture as a worst case option. With its frequent workplace accidents,

⁹ Life insurance could provide some protection against the risks of “widowhood”, defined literally. However, Section 3 will argue that the objective of Article 25 was to provide women and children with some protection against loss of access to male earnings, in a social context (1948) when single earner households were the norm and widowhood was the main route to single parent status. In 1998, marital breakup is the main risk, but this is uninsurable in private markets.

¹⁰ See Atkinson and Micklewright (1991), Osberg (1996).

bankruptcies and severe recessions, the factory system of the late nineteenth century continually exposed the “respectable working class” to the risk of destitution.

Moss notes that the early proponents of social insurance included many prominent economists of the day¹¹, who were able to gather support across a wide spectrum of opinion, at a time when political discourse on labour issues was highly polarised. This broad range of support produced significant legislative success, and was undoubtedly assisted by the ambiguous nature of social insurance proposals in combining radical and conservative objectives¹². Moss characterises the economist-reformers as “socially minded defenders of capitalism” (1996:14), who did not propose (as the Marxists did) to socialise capital, but instead proposed the socialisation of risk.

As Commons later put it in his autobiography: “I was trying to save Capitalism by making it good.”¹³ The case for social insurance was made on several levels. The Progressives argued on moral, political and economic grounds against “wasting labour”. Under the slogan of “the conservation of human resources”, they decried the immorality, and the “social parasitism”, with which corporations used workers, only to discard them when ill, injured or unprofitable to employ. The Progressive economists believed in the capacity of capitalism to increase wealth, but they argued that capitalism was politically vulnerable because: “The principal underlying cause of social unrest is the uncertainty of income of wage earners and small producers”¹⁴. On purely economic grounds, they pointed to the efficiency costs of a system in which employers could generate (through workplace accidents, occupational illnesses or involuntary unemployment) negative externalities for families and for the broader society, while bearing no costs themselves. With the self-confidence of a new breed of “social scientists”, they argued that social insurance programmes with experience rating would force firms to internalise these costs in their decision making.

In shifting the focus of American social policy from the relief of pauperism to the prevention of worker insecurity, the movement for social insurance built on two themes which “since colonial times have pervaded the American discourse on poverty – the preference for prevention over relief and the distinction between the so-called worthy and the unworthy poor” (Moss:1996,39). Social insurance would prevent poverty by automatically paying benefits in the event of circumstances beyond a family’s control that would otherwise deprive it of its livelihood. In addition, the emphasis on prevention

11 R.T. Ely and J.R. Commons are probably the best known today, but other prominent supporters were Farnam, Seager, and Willoughby (Professors of Economics at Yale, Columbia and Princeton, respectively) – see Moss(1996:5)

12 Moss (1996:19) notes that Commons, Ely and Adams all experienced significant problems with keeping their academic jobs after conservative Board members objected to radical statements, and all moderated their subsequent utterances considerably

13 quoted in Moss(1996:66)

14 Commons – quoted in Moss (1996,23).

encouraged mechanisms (such as the experience rating of Unemployment Insurance premiums) designed to reduce the risk of such events. The distinction between worthy and unworthy recipients of social support was maintained by separating the programmes intended for the employable from programmes meant for the non-employable, and by emphasising the contributory financing of social insurance programmes. As Moss puts it, the distinction between insurance and relief has, ever since, “cast a shadow of suspicion over all non-contributory forms of welfare and helped to narrow the scope of politically acceptable social policy in the United States” (1996:57). One of the social costs of a set of programmes designed to safeguard the standard of living of the “honest worker” was its omission of benefits for socially marginalized groups¹⁵.

The history of social insurance in the US is a useful case study, which illustrates the combination of motives that, in varying proportions, have impelled governments of widely differing political persuasions to create programmes to reduce “economic insecurity”. Major social insurance initiatives have been put in place by the Germany of Bismark and the Spain of Franco, as well as by the Sweden of the Social Democrats and the Canada of 1960s Liberals. For conservatives, the objective has been the maintenance of social stability, on the presumption that a society in which much of the populace is insecure is also a society in which the position of the ruling classes will be insecure. For reformers, the motivation has been improvement in the well being of a population that dislikes insecurity. Both have accepted capitalism as a system, and attempted to make it function more effectively.

A second major reason why economic insecurity is important is the direct impact of greater security on individual wellbeing. For example, a recent survey of Australian attitudes found that: “job security has a substantial impact on satisfaction. In fact, job security and occupational status -- the chief “usual suspects” -- are tied for first place as the most important source of job satisfaction: secure jobs and jobs that demand thinking, planning, and responsibility are much more satisfying than others.” However, job security is becoming less common - between 1989/90 and 1994 the percentage of Australians who reported themselves to be either probably or somewhat secure in their jobs fell by 16 percentage points (from 73% to 57%). (Evans and Kelly, 1995)

Recently, Akerlof and Kranton (1998) have explored the implications for economic behaviour of the idea that individuals may care about a sense of identity, as well as deriving utility from the consumption of commodities. They argue that the concept of identity – “who people think they are, what type of person they conceive of themselves as being” - implies a set of *prescriptions* about “what behaviour is and is not appropriate and what different actions mean to an individual and others in society” (1998:1,6). In a society

¹⁵ In the first years of Social Security in the US, for example, African-Americans drew relatively little in benefits, since agricultural laborers and domestic workers were initially excluded from coverage.

with clearly defined gender roles, for example, some behaviours (e.g. a “breadwinner” or “homemaker” role) may be seen as integral parts of male and female identity. Akerlof and Kranton note that people often care deeply about such behaviours, whether performed by themselves or by others, over and above any impact these behaviours may have on their personal consumption of goods and services. They argue that behaviour inconsistent with societal prescriptions can be perceived as a threat to personal identity, and the reaction is typically emotionally cued and reflexive.

In practice, many prescriptions about appropriate role behaviour are closely linked to economic outcomes. Behaviour often costs money. The maintenance of a social identity depends partially on whether or not individuals have the discretionary income to purchase particular clothing or participate in their habitual leisure and community activities, as well as on such things as the type of automobile they drive (or whether or not they have one), and on whether or not they can “support their family”, etc. For many individuals, the sense of identity they have in society is hard to separate from observable manifestations of identity through consumption. As well, economic outcomes (such as the type of job a person has, or the neighbourhood they live in) determine much of an individual’s patterns of socialization and status. Economic insecurity about these outcomes can, therefore, be highly threatening to personal identity. Of course, rapid cultural, as well as economic, change means that insecurity about economic outcomes interacts with other sources of insecurity about personal identity – but it is probably safe to say that economic insecurity magnifies their impact.

Economic instability may also interfere with people’s ability to form lasting, meaningful relationships. Each job change means the loss of one set of co-workers, and the necessity to form new ties with one’s new colleagues. Each residential move depletes the “social capital” that individuals have built up in reciprocal relationships with their neighbours. It is worth noting that such moves may have long term costs – Cora and Heinz (1998) examine the intergenerational transmission of earnings in a sample of Canadian men and their children and finds that the frequency of residential mobility in childhood has a large and statistically significant negative impact on children’s eventual adult earnings, controlling for all other influences.

In the Malaysian context, a long history of rapid growth may have habituated many people to the idea that there are always attractive options available in the labour market -in which case the market offers a sense of personal identity, stability and security. If the labour market is always booming, relatively few people will need to depend on the social protection that systems of unemployment insurance and social assistance are designed to provide. In the context of rapid growth, where social programmes have not been developed (as in Malaysia), relatively few people need to depend on the generosity of their extended family for economic support, and the other members of these families are typically in a position to be generous (if they are asked). Economic insecurity is, in this context, relatively low and individuals are not typically threatened by unemployment in

their sense of occupational and social identity, or in their familial roles, by the necessity of asking for help or the inability to respond to such a request.

However, in a severe and long lasting recession, when many people need assistance and their relatives have depressed incomes and lessened reasons for optimism about their personal future, the expanded need for transfers within the family creates new social tensions. Individuals who experience unemployment may lose their self-image of competence and self-reliance as they, in essence, have to beg from their richer relatives. (A situation which may be particularly problematic if the request for assistance is to someone younger, or of traditionally lower status within the family.) Individuals who are themselves spared from unemployment (but have lower incomes and anxieties about their own futures) may not be able to respond adequately to their relatives' needs - even if there is a strong social norm that they should - and may thereby lose their traditional sense of familial role.

In current policy discussions, there may be a tendency in Malaysian policy circles to contrast the cohesion and sharing of extended families in Malaysia with the nuclear families of Western nations. However, it should not be forgotten that prior to the establishment of the welfare state, the extended family used to be the social mechanism for risk pooling in Western societies as well - and that in those nations the welfare state grew out of dissatisfaction with how well the extended family coped with the periodic downturns of the business cycle, and the continual need for mobility in a fluid labour market. In the process of development and urbanization, the traditional norms of rural society inevitably weaken, even if this process is sometimes masked by the fact that when growth is rapid, few people have to call on their richer relatives for help. However, when suddenly placed under extreme stress, the traditional norms of the extended family may well sometimes dissolve under the pressure.

As well, rising levels of economic insecurity can be expected to change individual behaviour. These changes in behaviour may affect the reliability of economic forecasting, when individuals alter their labour market or asset decisions in response to greater perceived insecurity. Variations in economic insecurity (especially employment insecurity) have a major influence on "consumer confidence", which in turn influences expenditure plans on a wide range of consumer durables. The impact on the construction sector is likely to be particularly important. Haurin (1991) has examined the role played by income variability in influencing the home ownership decision. His conclusion is that a 10% increase in income variability reduces home ownership by the same amount as a 5% decrease in average income. As a result, the accuracy of macroeconomic forecasting may be affected by greater economic insecurity, and if governments are also constrained in increasing expenditure to make up for the loss in consumer purchasing caused by greater insecurity, the ultimate duration of the recession will increase .

More importantly for the long term, when individuals seek to minimize their personal level of economic insecurity, the micro strategies available to them may be personally and

socially inefficient. Rising unemployment may, for example, convince workers that there is an increased risk of future layoff if they should change jobs, because changing jobs implies they will lose the protection that their seniority in their current job now provides¹⁶. A decision to avoid the risks of mobility will have personal costs and benefits, in the form of lower long term wages and stronger workplace ties, and this decision will also impose costs and benefits on others. As Akerlof et al (1988) have noted, labour mobility is a bit like the children's game of musical chairs, since each voluntary departure from a job opens up a vacancy that is potentially available to some one else. The productivity gain to labour mobility in the economy as a whole is the sum of the gains at each link in the "mobility chain" of vacancies that opens up when an initial move is made, and the vacancy created by that departure is filled by someone who quits a job, leaving a vacancy somewhere else, etc. However, if no initial vacancy is created, none of the potential gains from subsequent mobility will be realized.¹⁷ Although individuals will consider their private costs and benefits when coming to a decision about labour mobility, no individual worker has an incentive to consider the externality which his or her mobility creates.

Enrolment in specialized training also represents a gamble on the future, since specialization narrows the options available to an individual in the future. The decision to specialize is risky, since it ties the individual's fortunes to future demand and supply for a narrower specialty. No one can be totally sure that technological or market changes might not, in the future, reduce demand in a specific labour market, or that a specialty might not become swamped with excess supply. Faced with greater labour market insecurity, it may be a rational strategy for individuals to diversify their human capital portfolio, by acquiring generalist, rather than specialist, skills.

Unemployment insurance/assistance reduces the hazards associated with labour market mobility, and skills specialization. Without some pooling of the risks associated with mobility and training, risk averse individuals may systematically under-invest in mobility and in specialized training, to the long run detriment of productivity growth. In many respects, a well functioning labour market is a public good, for both employees and firms. By influencing the ways in which individuals can avoid economic insecurity, the social security framework has had an important influence on labour market efficiency, in the long run. ¹⁸ Although there is a large literature on the possible labour supply impacts of social insurance programmes, there has been much less emphasis in the economics literature on

¹⁶ For Canadian empirical evidence which supports this hypothesis, see Osberg (1991).

¹⁷ Labour mobility also has costs, in the form of the loss of firm-specific human capital and the recruitment and hiring costs imposed on employers, which individual workers cannot be expected to factor into their decisions.

¹⁸ For example, in the US, several authors (e.g. Olsen, 1994) have pointed to the potential social costs of "job lock". Employer paid health insurance can lock workers into their current jobs, for fear of the economic consequences of foregoing health care coverage for existing ailments, if they should change employers.

the potential costs and benefits of alternative worker strategies to minimize insecurity, if social insurance protection is less available. Clearly, social insurance programmes have both administrative and behavioral costs. However, if (as in Malaysia), risk reduction through social insurance is not available, and there is no longer a booming labour market which offers easily available job options, what are the social costs and benefits of the alternative risk reduction strategies which individuals can follow?

As well as prompting individually “rational” (but socially wasteful) risk avoidance strategies, insecurity may produce deeper dysfunctional responses. Borg and Elizur (1992:14) conclude that: “Employees with higher job insecurity cope with the potential loss by reducing the subjective value of the loss”. Employees with a strong work ethic are those who have the most to lose, when they lose their jobs. Hence, it is those with the strongest work ethic who tend to have the strongest psychological withdrawal process. The effect of greater insecurity in producing decreased job commitment can be partially offset if social support is available to workers to reduce their sense of insecurity, but in general “job insecurity has a negative impact on employees’ commitment and motivation”(1992:25). Because one way of coping with the possibility of loss is to decide “I didn’t want it anyway”, long periods of employment insecurity are likely to be dysfunctional to maintenance of a “work ethic”.

In short, because the prevention of economic insecurity has been a major focus of the welfare state, because the existence of economic insecurity decreases the well-being of individuals, and because some individually rational strategies to avoid personal insecurity may be socially inefficient, economic insecurity is worth worrying about.

3. What exactly is “economic insecurity”? - Insecurity and Risk

Section 2 has argued that economic insecurity is an important issue - however, “economic insecurity” has not yet been exactly defined. Economists have written a great deal about “risk”, but very little about “insecurity” – what exactly is the difference? If “risk” and “insecurity” differ in conception, and if economists only know how to talk about risk, is the language of economics adequate to the policy problem of reducing economic insecurity? Is the framing of economic policy choices in terms of the language of economics part of the reason why economic policy has paid little attention to economic insecurity in recent years?

“Risk” is usually defined in economics in terms of a probability distribution over future states of nature (Varian, (1992:172) comments that “Most situations involving behaviour under risk can be put into this lottery framework.”). The MacMillan Dictionary of Modern Economics defines “risk” as “a context in which an event occurs with some probability or where the size of an event has a probability distribution”(1989:373). Sometimes a distinction is drawn between “risk” and “uncertainty”. For example, the Penguin Dictionary of Economics states: “A decision is said to be subject to risk when there is a range of possible outcomes which could flow from it and when objectively known probabilities can be attached to those outcomes. Risk is therefor distinguished from uncertainty, where there is a plurality of outcomes to which objective probabilities cannot be assigned.”(1986:385)

The term “insecurity” does not appear in dictionaries of economic jargon, but one ordinary dictionary’s definition of “insecure” is: “not safe or firm; anxious, not confident”¹⁹. Another dictionary defines it as: “(1) anxious or afraid, not confident or certain; (2) not adequately protected”;²⁰while a third suggests: “exposed to danger, unsafe; not firm or safe (insecure foundations); not free from fear, doubt, etc.”²¹, and a fourth succinctly states: “unsafe, not firm”²²

Economic insecurity is the state of being economically insecure. Based on the common elements in the above dictionary definitions, a definition of “economic insecurity” which reflects the common usage meaning of the term “insecure” might be: “the anxiety produced by a lack of economic safety – i.e. by an inability to obtain protection against subjectively significant potential economic losses”. This definition has the advantage of sticking fairly closely to the generic meaning of the term “insecure”. However, it also includes four elements which may be problematic in economics: (1) the emotional state (anxiety) produced by anticipation of future hazards: (2) a qualitative distinction between

19 Collins Gem Dictionary (Australian English) page 281

20 Collins Dictionary Plus- Page 646

21 The Macquarie Dictionary, Second edition, Macquarie University, 1991, page 909

22 Concise Oxford Dictionary of Current English, 6th Edition, Oxford, Clarendon Press

“safe” and “unsafe” states; (3) a subjective estimation of the probability and cost of losses; and (4) the existence of constraints on the risk avoidance options available to individuals.

3.1 Implications of Anxiety, and the concept of “Safety”

Although economists do not often discuss “anxiety”, the term “disutility” is somewhat more common²³. The two terms differ in that disutility is a more generic, less specific conception. The idea of disutility encompasses all sources of “negative satisfaction”, whether they arise from the actual present experience of unpleasant events or the present costs of the anticipation of future unpleasant events. Income risk arises when individuals receive incomes whose amount depends on uncertain future events. If individuals are risk averse, the disutility of income risk can in principle be measured as the difference between the expected value of an uncertain income stream and the certain income that would generate the same level of wellbeing.²⁴ Appendix A presents the standard economic argument on the utility loss of risk averse individuals facing an uncertain future.

“Anxiety”, however, is necessarily both forward-looking and a more subjective conception. As Riskind (1997:685) puts it: “The concept that perceived threat is a cognitive antecedent of anxiety is central in clinical psychology, personality psychology and social psychology.” “Perceived threat” is inherently subjective in nature, since an objective danger of which people are unaware produces no anxiety at all.

Moreover, an important dimension of anxiety is the patterned interaction between subjective assessments of risk and objective indicators of hazards. – as Wells and Matthews (1996:422) put it: “It is well established that anxious individuals show bias in selective attention. They are prone to material whose content is threatening in preference to positive or neutral material.” Riskind (1997) notes that movement or change is an important trigger for anxiety responses in many experimental situations and proposes a model of “looming vulnerability” as a way of explaining both pathological and normal anxiety. He stresses the positive adaptive functions and species survival value of anxiety as a mobilisation response in a threat situation. As he puts it: “Looming vulnerability is... an important cognitive component of threat or danger that elicits anxiety, sensitises the individual to signs of movement and threat, biases cognitive processing, and makes the anxiety more persistent and less likely to habituate.(1997:685)”.

23 There are 20 matches with “anxiety”, and 51 with “disutility” in the 1980 to 1996 ECONLIT CD-ROM.

24 Osberg, Erksoy and Phipps (1998) demonstrate how a micro-simulation model can be used to calculate the utility cost of increased insecurity – if insecurity is defined as the loss in certainty equivalent income which arises when income streams become more uncertain, due to higher unemployment and reduced availability of unemployment insurance benefits, if individuals accurately assess future objective probabilities and if individuals evaluate outcomes purely by end state, with no “loss aversion”. The current discussion can be seen as a critique of both this paper and of Osberg (1995).

One can easily see how, in primeval times, once a danger had been recognised, some degree of heightened awareness and selective attention would have been very useful in threat situations. The anxiety response is likely to have been biologically advantageous during human evolution, and have therefore become part of normal human genetic programming²⁵. However, central to that response is a qualitative distinction between “threat” and “no threat” situations, and a degree of selective attention and heightened sensibility when a threat is perceived. In defining “insecurity”, it is therefore useful to draw a distinction between the disutility of unwanted risk and the anxiety produced by a lack of safety. This distinction highlights the subjective nature of insecurity, the possibility of a qualitative distinction between threat (unsafe) and no-threat (safe) situations and the probability of biases and exaggeration in subjective perceptions of hazards.

Furthermore, the distinction between disutility and anxiety may be important for understanding trends. Anxiety responses are triggered by changes, since “in general, the perceptual and nervous systems detect changes in things rather than static things”. (Riskind: 1997,698). Known hazards, of an unchanging nature (like being hit by lightning, or crossing the street), may generate an objective probability of harm, but will not generate a corresponding degree of insecurity, if individuals become habituated to that risk. However, The sudden onset of the recession in South East Asia means there has been little opportunity for habituation. Furthermore, in a depressed labour market, constant attention to market movements has become more important, to more people. Constant change in the stimulus that produces anxiety implies that individuals are unlikely simply to become habituated to a new level of objective risk.

As well, as the saying goes, “once bitten, twice shy” - anxiety responses are more likely to be observed in individuals who have had a direct prior personal experience of a negative event. The accumulation of experiences with corporate downsizing, recessions, etc., means that the stock of such individuals will be a growing fraction of the population. As a result, over and above the influence of the structural labour market changes that have increased objective labour market risk²⁶, there may be reason to believe that rising economic anxiety is a secular trend.

3.2 Subjective Estimation of the Costs of Hazards

Anxious individuals may perceive risks differently from non-anxious people, but even for the non-anxious, the ways in which humans actually process cognitive risk information may be important for the distinction between risk and insecurity. Graduate texts in micro-

²⁵ Riskind notes that the distinction between pathological and normal anxiety levels is, in this framework, one of the relative degree of reality distortion in threat assessment, which is partly driven by the rigidity of “fear scripts” based on trigger stimuli and maladaptive pessimistic interpretations of past events.- see also Beck and Clark (1997)

²⁶ See Osberg (1995, 1998)

economic theory typically devote considerable space to analysis of the problem of optimal rational choice among risky or uncertain alternatives. However, several texts (e.g. Kreps, 1990) draw a clear distinction between the study of rational choice as a *prescriptive* exercise that may help to improve decision-making or as a *descriptive* exercise that models how people actually behave.

As Kreps (1990:112) notes, the predominant approach in economics is to model the problem of rational choice as the maximisation of expected utility, and to weight the utility to be derived from any future outcome by the probability of that outcome occurring. In maximisation of expected utility, subjective assessments of probabilities are assumed not to diverge systematically from objective probabilities and small changes in probabilities are assumed to receive the weight that such changes mathematically deserve. If all this were empirically true, there would be no obvious meaning to be ascribed to such qualitative terms as “safe”(other than as an approximation to a very low probability of occurrence) and no behavioural implication would be expected from very small changes in probability.

However, all major micro-theory texts acknowledge that there are significant problems with this approach as an empirical prediction of how people actually behave. Actual behaviour in the presence of risk is influenced by how people form estimates of the probability of future events, how they evaluate probabilities and how they evaluate the costs of possible losses and the benefits of possible gains.²⁷

In thinking about the personal decisions of individuals, it seems too narrow a definition to restrict the term “risk” to include only those decisions for which objective probabilities are available, because that is relatively rare. Although a process that is designed to be random (like a lottery draw) will have “objective” probabilities of outcomes, large sample information on other processes (like heart disease or layoff or an accident while driving home) is fundamentally different. The “objective” probability of such outcomes is really the average incidence in a defined sub-population. In reporting the influence of variables, such as age or weight, on the probability of occurrence of an event, statisticians ignore the details of individual cases.

However, in each person’s own life, many details are known, even if their degree of influence on outcomes is not. In personal decisions, there is no escaping the small sample problem, or the problems of limited information and constrained information processing capacity. We never get to do repeated sampling from the probability distribution of future

²⁷ Kreps (1990:119) notes that in the standard model “Individuals are assumed to understand to an amazing extent the environment within which they act, and it is assumed they can perform fantastic calculations to find their own best course of actions at no cost and taking no time. This is, of course, ridiculous. Faced with complexity, individuals resort to rules of thumb, to “back of the envelope” calculations, to satisficing behavior (taking the first “satisfactory alternative that arises) and the like. It seems patent that such limitedly rational behavior would, when placed in a complex economic context, have important implications.”

events and thereby assess the objective probability distribution of outcomes. Instead, we all know that the uniqueness of our own characteristics and our own particular combination of circumstances means that large sample information from the population at large is only partially applicable to our own case.

Hence, the problem of how to form subjective estimates (which can never fully be checked against an “objective” probability distribution) is inescapable. There is considerable evidence that people use predictable heuristic devices to help solve this problem of probability estimation. Even for the statistically sophisticated, these heuristics diverge in predictable ways from a “rational” Bayesian approach. In forming estimates of the probability of events, people tend to be insensitive to prior probabilities, to sample size information, and to the predictability of events. Subjective estimates are often influenced by such misconceptions of chance processes as expecting heads after a run of tails in tossing a coin, and people tend to “anchor” probabilities in such initial estimates as equal probability. As well, subjective probability estimates are heavily influenced by the availability of illustrative instances and the imaginability of possible outcomes.²⁸

Once a subjective probability estimate has been formed, how is that information processed? A large body of empirical research has presented experimental subjects with stated probabilities of events and has demonstrated the prevalence of “irrational” choices when individuals are faced with very small probabilities, with probabilities of uncertain magnitude and with choices that are “framed” in different ways.²⁹ In estimating probabilities, the evidence is that “individuals rescale probabilities, with more weight (proportionately) given to small probability events” (Kreps;1990,116). These experiments are quite distinct from the literature on anxiety, or that on the formation of subjective probabilities, since they typically take the form of volunteer subjects choosing between alternative prospects of gain, with defined probabilities – i.e. there is no uncertainty and no prospect of unwanted negative outcomes.

The formation and processing of probability estimates are two separable issues, and the evaluation of outcomes is a third issue. In a long series of papers, Kahneman and Tversky have argued that: “the outcomes of risky prospects are evaluated by a value function that has three essential characteristics. *Reference Dependence*: the carriers of value are gains and losses defined relative to a reference point. *Loss Aversion*: the function is steeper in the negative than in the positive domain; losses loom larger than corresponding gains. *Diminishing Sensitivity*: the marginal value of both gains and losses decreases with their size”. They justify these propositions by citing a great deal of experimental evidence designed to distinguish between loss aversion in outcomes and the

²⁸ For further discussion, see Tversky and Kahneman (1974), Kahneman et al (1982)

²⁹ “Framing” – whether a nuclear power plant is portrayed as having a 99.9% chance of safety or a 0.10% chance of meltdown – has been shown to be crucial in many contexts. See also Kreps’ discussion of the Allais and Ellsberg paradoxes (1990,112-120) or the discussion by Slovic et al (1990) of the importance of compatibility and framing in perception.

conceptually distinct issues of risk aversion and the estimation and processing of probabilities. They argue: “The value function appropriately reflects three basic facts: organisms habituate to steady states, the marginal response to change is diminishing and pain is more urgent than pleasure. The asymmetry of pain and pleasure is the ultimate justification of loss aversion in choice. Because of this asymmetry a decision maker who seeks to maximize the experienced utility of outcomes is well advised to assign greater weight to negative than to positive consequences”. (Tversky and Kahneman, 1991:1039, 1057)³⁰

All these issues – how people form subjective estimates of probabilities, how they process probability information and how they evaluate losses – interact in their implications for a conception of individual economic insecurity, and how it might differ from risk. Losses appear to matter more than gains and objectively small probabilities of vivid losses can matter disproportionately. Furthermore, in the real world the inability of individuals to deal “rationally” with very small probabilities of loss and the prevalence of anxiety responses often occur simultaneously.

One way to appreciate the importance of these issues is to consider a specific case – such as the public furore over Creutzfeldt-Jakob (“mad cow”) disease in the mid 1990s. The assertion that there was a possible link between the occurrence of Creutzfeldt-Jakob disease in humans and feeding practices in the UK beef industry had major implications. It produced a dramatic loss in markets for UK beef, provoked a major international row between the UK and its European Community partners, and eventually forced the slaughter of some 200,000 animals³¹. Somewhat lost in all the anxiety was the fact that the disease in question has an underlying incidence in the population of less than one in a million (0.83 per million in the US, in 1986/88). The suspect cases identified comprised, at most, 6% of confirmed cases between 1990 and 1996 (see Cousens et al, 1997). Hence, the change in probability of infection was of the order of one in twenty million (if indeed there was any link at all between the disease and cattle feeding practices³²). Most dispassionate calculations of expected utility would assess a change in probability of one in

³⁰ Tversky and Kahneman (1991:1054) suggest that in practice losses have about twice the utility impact of gains, in both risky and riskless choices.

³¹ In the popular press there are a continuing series of newspaper articles such as Cooke (1998), which “charts the terrifying path of a killer disease”.

³² There was (and is) no direct evidence of the link between animal feeding practices and the disease in humans. The evidence for the existence of a link is a presumed excess numbers of cases (seven) identified as “occurring in groups with potential occupational exposure” between 1990 and 1996 in the UK. However, the inability to define clearly the at-risk occupational population, or control adequately for its age composition, makes this evidence rather problematic. - see Cousens (1997), and associated articles in the same issue of the British Medical Journal.

twenty million as not worth worrying about.³³ However, in practice there seems to be a qualitative difference in the way in which people respond to a situation in which there is “no risk at all” (i.e. a “safe” situation) and the way they respond to a situation in which the risk is “very small”.

If one puts the literature on anxiety and perception together with the literature on choice under uncertainty, several themes emerge. There appears to be a discontinuity in the size of the benefits people ascribe to being “safe”, (i.e. a subjective estimate of zero probability of a hazard) compared to the benefits that they ascribe to being “pretty safe”, (i.e. a subjective estimate of a “very small” probability). There also appears to be a tendency for people to over-estimate the objective prevalence of small probabilities. The way in which risks are “framed” influences the assessment of probabilities, and the salience of vivid, imaginable risks is often greater than proportional to their probability. People tend to overestimate the probability of risk of events they have personally experienced. The bottom line is that “insecurity” differs in predictable ways from “risk assessment”.

3.3 Constrained ability to avoid risk

If people are, or feel, “unsafe”, it must be because they either did not have the option of safety, or did not choose to exercise that option. Anxiety about a lack of safety (i.e. “insecurity”) has an easy solution if a threat avoidance option is available. Since a number of different strategies are available to individuals as ways of avoiding economic risk, the “insecure” must be those for whom none of these alternatives were available.

Furthermore, one possible strategy for avoiding aggregate risk is to assume the risk of a negatively correlated outcome. For example, investors in the stock market may have the choice of buying shares in companies which will do well if oil prices rise or shares in firms which will do well if oil prices fall. If one considers each stock in isolation, the investor will be seen as incurring a risk of gain or loss, depending on oil price movements – but their aggregate portfolio risk will depend on the balance of their holdings, over both types of shares.

³³ Presumably, “safety” in economic life corresponds to an underlying risk probability that is considerably higher than the risk involved in medical issues such as “mad cow” disease – probably because economic risks do not have the same gruesome nature. The idea of an undetectable virus that is boring holes in the brain, with inevitably fatal (but slow) results, has an emotional impact that economic losses cannot quite match.

The importance of vividness of outcome, in swamping the influence on attitudes of probability of outcome can be illustrated by informal polling on “mad cow” disease. In a number of conversations with professional economists (who are presumably a statistically sophisticated lot) I have yet to find anyone who had the foggiest notion of the marginal impact on probability of mortality from Creutzfeld-Jakob disease of eating beef, yet virtually all could remember clearly the TV film clips of staggering cows afflicted with the disease and most admitted to increased beef aversion.

However, in Malaysia as elsewhere, individuals who are concerned about the risk of a personal “loss of livelihood” cannot purchase an asset whose return is negatively correlated with the return on their own human capital. At any point in time, one can think of any individual as having a portfolio of risk avoidance options against the possibility of significant economic loss, and a corresponding environment of potential risks. Individuals can reduce their risk exposure by individual actions taken in economic markets, by reliance on the public sector or on non-market mechanisms and by taking part in collective actions to affect the probability and costs of hazards. These alternative strategies differ in social and private costs, and differ in degree of effectiveness in avoiding risk, but they also act as partial substitutes in producing an overall level of economic security or insecurity.

Insurance markets enable individuals to purchase compensation for part of the costs associated with specific, named hazards (such as car theft, or house fire), but such contracts are only available for a subset of economic risks. Furthermore, the necessity of covering administration costs and profit margins, plus the prevalence of imperfect competition, mean that insurance premiums are less than actuarially fair. In some cases, insurance coverage may not be available.

Although the young have not yet had the opportunity to make many savings decisions, and the poor never do get the chance, older and more affluent individuals do make choices about asset accumulation. For those individuals, rising economic insecurity increases the incentive to save, and to increase the percentage of assets held in fairly liquid forms. The “precautionary motive” for savings offers a general source of security, whose efficiency in offsetting the impact of income fluctuations depends on the liquidity of assets held.³⁴

The possession of insurance policies, and/or the possession of wealth are private strategies which are intended to ensure that whatever states of nature actually occur, the individual will not be too badly off. However, asset accumulation strategies are inherently unavailable to the poor and the young, and private insurance against the risk of “loss of livelihood” is in practice limited to disability insurance on expensive and partial terms. As well, asset accumulation strategies can only cope with a limited run of bad luck before assets are exhausted³⁵. Since job loss implies (among other things) that an individual must start over in a new job, without any seniority, there is a heightened risk of subsequent job loss (at a time when savings will have been depleted). “Bad luck” in the labour market is therefore quite likely to come in runs, and only a very limited segment of the population can accumulate enough assets to forestall economic insecurity.

34 Gollier (1994) presents a formal model. Browning (1994) has also recently pointed to the potential importance of the “internal capital market” of households, in the sense that short run fluctuations in cash income can sometimes be partially accommodated by the deferral of consumer durable purchases.

35 Osberg et al (1998) note that relatively few Canadians have enough liquid assets to last out a typical spell of unemployment at a poverty line level of consumption, without any income transfers,

Furthermore, it must always be remembered that the level of economic security available through private savings and insurance depends crucially on the credibility of the promises that banks and insurance companies will honor their commitments. In an atmosphere of financial crisis, as is now the case in much of South East Asia, dependence on the private sector may not offer much security.

However, individuals can also attempt to influence the probability of future personal events by their current decisions. Workers may be influenced in their labour market decisions by a perception that some strategies of human capital investment, choices of occupation or location, or decisions about employers or jobs, come with differing risks of future unemployment, workplace injury or other hazards. Investors presumably weigh risk and reward in their portfolio decisions. All these decisions are taken in formal economic markets, but their risk avoidance dimension ranges from the explicit nature of insurance contracts, to the general security of asset accumulation and the implicit protections of relatively “safe” market choices.

Security comes from the perception that attractive (or at least tolerable) options will be available, whatever happens. A fire insurance policy offers the security of the insurance company’s promise that the house will be replaced, should it burn. Adequate social assistance and social insurance programmes offer the security of a legal right to social transfers, in the event of personal economic misfortune. Those people who can be sure of the availability of a network of social support through the family can depend on their relatives for support. Over and above the roles played by formal economic markets in determining the level of risk exposure of individuals, the social institution of the family and the social programmes of the welfare state pool risk among individuals.

However, insecurity is about possible future events and their outcomes, and the security offered by the family and by the welfare state is fundamentally different. The welfare state pools risk among all individuals and establishes a set of formal procedures by which individuals can claim assistance, as their legal right, if specific contingencies should arise. Families pool risk among a much smaller number of individuals, whose fortunes are likely to be much more highly correlated than the fortunes of the population as a whole. Furthermore, family obligations of mutual assistance are not legally enforceable. The option of begging from one’s richer relatives may come with much accompanying humiliation, like the necessity of admitting past errors, and may not always be successful, since relatives can always disown their liability. In generalized recessions, when times are tough all over and no member of the extended family has the surplus to be able to offer assistance, family ties may break under the stress of excess demands³⁶. Hence, the economic security of family ties is in practice not a substitute for the protections of the welfare state.

³⁶ In June 1998, press reports from South Korea noted “a growing number of cases (of children abandoned in orphanages) across South Korea this year. Rising unemployment and the resulting financial stress on low-income families is creating a social phenomenon of recession orphans.” Sydney Morning Herald June 20, 1998, Page 1

Furthermore, family ties change with time, and with the process of economic modernization. In traditional rural societies, the strength of social norms and family ties is reinforced by the close interaction of members of the extended family over their entire lifetimes and by the importance of reputation in a community where individuals all know each other. Urbanization, and the mobility demanded by a dynamic capitalist labour market, undermines these buttresses to traditional norms of sharing within the extended family. The changing role of women, as they enter the paid labour market, also alters the expectations of family members. After several decades of rapid economic and social change, many are unable to return to their rural family origins. Although the majority of people may still be able to call on their relatives in case of need, the percentage of the population without access to the resources of richer relatives grows over time - leaving an increasing fraction of truly destitute when a severe recession strikes.

Over all, economic insecurity represents the combined influence of market constraints and personal choices, in both social and economic spheres, and the impact of each depends heavily on their context. Those who believe that market processes operate, nearly always, to enable all possible mutually advantageous trades to occur tend to disbelieve the widespread existence of constraints on the options available to individuals, and constraints on choices are central to economic insecurity.

The voluntary or involuntary nature of unemployment is particularly important to perceptions of economic insecurity. It is hard to imagine that economic insecurity could be widespread if every individual's asset of labour power could at any time be used to produce a decent income. If wages were always sufficiently high to enable an adequate standard of living and if work was always available, individuals would always have a labour market option. If unemployment were entirely voluntary, presumably its occurrence would evoke no anxiety. Although there is an empirical econometrics literature demonstrating that job availability is crucial in determining unemployment³⁷, economic theorists sometimes make the assumption that unemployment is determined by voluntary labour/leisure choice, or the individual's choice of reservation wage. If this were really the case, a marginal change in labour/leisure choice or reservation wage would be an easy available solution to any unemployed individual's shortage of cash.

Alternatively, if insurance markets were complete and competitive, individuals could purchase protection against any defined risk that they thought was significant, at actuarially fair prices. If capital markets were perfect, individuals could borrow or lend, at a constant interest rate, to smooth consumption despite any income fluctuations.

Even if labour markets had only voluntary unemployment, insurance markets were complete and capital markets were perfect, risk analysis would still be an important element in optimal decision making. In deciding which type of insurance to purchase, or which job offer to accept, it would make sense to calculate the odds of adverse outcomes.

37 E.g. Osberg and Phipps (1993)

However, the concept of economic insecurity would lose its meaning, since there would be no reason to feel anxious about any particular future economic event. For people outside economics, these assumptions may seem so wide of reality as to be incredible. However, since these assumptions are convenient, theoretical economists often make them, and this may tend to produce a “trained incapacity to perceive” economic insecurity, at least among economists.

4 The Measurement of Aggregate Insecurity

It maybe difficult to measure “insecurity” objectively, but it is easier to measure the risks, which produce a sense of insecurity. The issue is to measure “risk” in a way that is informative of “insecurity”.³⁸ If “insecurity” differs in predictable ways from “risk”, then those differences can be used to specify an appropriate measure of risk.

In order to measure risk in a way that is informative about insecurity, it would seem desirable to:

- [1] Measure the risk of significant loss (not the probability of gain);
- [2] Assign an explicit value to safety;
- [3] Rescale objectively small probabilities to reflect their subjective salience;
- [4] Assign more than proportionate weight to small probabilities of vivid, disastrous events.

These four issues are now discussed in turn.

[1] It may seem “common sense” that the prospect of an uncertain gain does not create anxiety, and that feelings of insecurity are only produced by down side risk. However, in standard analyses of the risk of outcomes of differing value, it is entirely arbitrary whether the issue is framed as the prospect of a gain, compared to the worst possible outcome, or the prospect of a loss, compared to the best possible outcome. In order to define the issue of insecurity as the risk of significant loss, one must be willing to specify some methodology for establishing the reference point of individuals. As well, one must be willing to distinguish between inconsequential losses and losses of “significant” size.

The work of Kahneman and Tversky is particularly important in identifying the different subjective valuations that individuals assign to losses, compared to gains. If feelings of insecurity are driven by the likelihood of a negative outcome, then one-tailed statistics (such as the percentage of the population experiencing a loss in income, or the average size of an income loss) are to be preferred. If insecurity and risk are different concepts, the measurement of insecurity should differ from the measurement of risk. Two-

³⁸ Public opinion polling can also provide useful information on subjective perceptions of insecurity – indeed this essay has already referred to the polling results of EKOS in Canada in the 1990s. However, although polls can probe respondents’ feelings and anxieties, their results are inevitably dependent on the precise wording of the questionnaire and it can be difficult to compare estimates of insecurity across instruments. Furthermore, although polls can yield useful data on the prevalence of a response (e.g. yes/no to questions on whether feelings of anxiety exist), there is no natural metric for the intensity of response (e.g. very/somewhat/slightly anxious) which can enable the aggregation of intensity.

tailed statistics (such as the coefficient of variation of outcomes) are appropriate for the analysis of risk – but not for the measurement of insecurity. As well, the issue of how to define the reference point for assessment of “loss” becomes particularly important.

[2] If individuals experience a “no-threat” situation as qualitatively different from a threatening situation, then a feeling of “safety” has a value. Safety can be interpreted as a subjective expectation that the probability of a seriously adverse event is approximately zero (which of course raises the issue of the degree of approximation).

Since “safety” is a dichotomous attribute, polling evidence on the percentage of the population who see themselves as “safe” in various dimensions of their lives can be directly used as a component of a measure of societal insecurity.

[3] If, once a probability of danger has passed a threshold of perception, people in fact act as if they have scaled upward small probabilities of danger, then measures of “insecurity” should reflect this systematic tendency to overestimate small probabilities. This, of course, creates the difficulty that the act of cataloguing risks may, in itself, increase the perception of risk and increase economic insecurity. The chance of any risky event can always be expressed as the sum of the probabilities of conditional events – but in inviting individuals to think separately about the chances of each possible conditional probability, the result is likely to be an increase in anxiety.

For example, the probability of being dismissed from one’s job is, logically speaking, the sum of the probabilities of being dismissed for all possible reasons. The list of all possible reasons for dismissal includes: because an error in the computer system falsely identifies you as embezzling funds; because you are falsely accused of sexual misconduct; because your immediate superior is replaced and the new boss hates you; because you suffer an incapacitating illness (a possibility that can logically be further decomposed into the list of all possible incapacitating illnesses) - and there is much, much more. Relatively few people would escape some increase in anxiety as they contemplate the list of all possible reasons for their dismissal, and calculate the conditional probability of each.³⁹ Although standard micro-economic theory assumes that humans have available the costless computational capacity to disaggregate risks in a logically consistent way, there are in fact considerable costs to trying to do so. Since the act of naming a hazard may tend to increase its subjective weight, the “framing” of risks is highly important.

Some general risks have an ongoing, and fairly obvious, importance in individual’s lives – in particular, the risks which the UN Universal Declaration of Human Rights enumerates of loss of livelihood in the event of unemployment, sickness, disability,

³⁹ [In fact, we typically refer to people who routinely catalogue all the possible ways that things could turn out badly as being “neurotic”, or even “paranoid” – terms which cannot easily be fitted into the standard discourse of rational utility maximization.]

widowhood, old age or other circumstances beyond an individual's control. However, other risks may be more problematic.

[4] When people think of threats to their wellbeing, many tend to think qualitatively. This way of thinking is reasonable, if there are some discrete outcomes (e.g. residence in a particular neighbourhood, possession of an automobile) that delineate major differences in lifestyle and well being. Correspondingly, one way of framing the issue of risk is to draw a distinction between threats of different sizes. One might, for example, think of a loss as being "a big hit", "major" or "a catastrophe". As an example, one might distinguish between such events as: (a) the destruction by fire of one's uninsured house or car; or (b) the loss of one's house and one's employment as a professional and the beginning of a new life as a taxi driver; or (c) the loss of all financial and material assets and all employment prospects. One might call a loss that is manageable within one's current lifestyle a "big hit". Such an event is certainly disagreeable, but is typically thought of as differing qualitatively from a "major loss" – i.e. an event that would force a substantial change in lifestyle. The possibility of a "catastrophe" – a loss that is so large as to produce destitution – can have an impact on anxiety levels that is of a different order of magnitude again.

In thinking of the gains and losses from risky events, economists have typically followed Marshall's dictum that "Nature does not make jumps" and have preferred to think of utility as a continuous function of income. It is also common for economists to assume a concave utility function, which implies that large losses will have an impact on utility that is more than proportionate to the size of the loss.⁴⁰ The concavity of the utility function can take us part of the way in appreciating the impact of major losses, but the common denominator of lifestyle changes is the existence of substantial transactions costs of change⁴¹. If these transactions costs are included as part of the loss, a sufficiently concave utility function may well capture the utility cost of a "major loss" (although it is in practice not easy to capture the psychological impact of an event such as forced change in lifestyle).

Finally, in considering the sense of insecurity that the possibility of catastrophic loss produces, the vividness of an extreme outcome may well (as in the mad cow disease case) dominate the actual probability of the event. Homelessness, and the probability of total destitution, may provide an example. The daily sight of homeless people on the streets

40 Tversky and Kahneman (1991) argue for a concept of "diminishing sensitivity" to losses, which implies a convex utility function, in the immediate neighborhood of the status quo. Diminishing sensitivity may be the way to analyze smaller and larger losses within a given life style, or a given experimental situation. However, losses that are large enough to produce major lifestyle changes (and their substantial associated utility costs) are better analyzed in the traditional framework of a concave utility function, and risk aversion.

41 The transactions costs of a forced sale of housing are quantifiable, but the costs of a substantial redefinition of occupational identity and social status (as in the professor/taxi driver example) are less easy to establish. Certainly life would still go on, but major occupational changes typically require a significant period of adjustment.

serves as a vivid reminder that this outcome is possible, hence the chance of being totally destitute may have a salience that reinforces a general sense of economic insecurity.⁴²

From a policy perspective, the disproportionate weight which vivid, small probability events can play in forming perceptions of economic insecurity implies there may be a disproportionately large public benefit from eliminating a risk such as homelessness.⁴³

5. Summary and Conclusions

One theme emerging from the above discussion is that the question of measuring economic insecurity could be turned around. It may sometimes be simpler to discuss the converse problem – the measurement of economic safety.

A second theme has been the subjective nature of anxiety and the formation of subjective expectations. There may therefore be a larger role for attitudinal survey evidence in the measurement of economic insecurity than is normally common in economics.

A third theme has been the continuing importance of some core dimensions of economic security. The risk of loss of livelihood in circumstances beyond one's control is strongly influenced by the same factors (unemployment, old age, health, widowhood/divorce). Hence, tracking the economic risks associated with these events over time seems to be crucial to understanding trends in economic insecurity.

In the background, there is also the question: "Why do we want to measure economic insecurity anyway?" This essay has identified a number of reasons why economic insecurity might be important - it may, for example, be an important determinant of political stability, and indirectly (if political stability is a prerequisite for economic growth) an important determinant of long run economic growth. The best way in which to measure economic insecurity may be partly determined by how we want to use the results. Since the underlying purpose of measurement may vary, and the concept of economic insecurity is complex, it is probably desirable to aim at multiple indicators of the extent of economic insecurity. Furthermore, since anxiety as a subjective response to perceived risk is

42 Note that the growing number of millionaires (also a low probability event) has little impact on feelings of "insecurity" which are driven by downside risk. As well, it is probably asking too much of economic theory to ask it to model the insecurity which surrounds the chance of total destitution in terms of the expected utility and the objective probability of being "on the street". Technically, "standard" utility functions, which are otherwise quite reasonable, (e.g. the Stone-Geary) can be very hard to interpret when income approaches zero. More philosophically, authors such as Donaldson and Sen have discussed the idea that a basic level of capabilities or functioning are necessary for a minimally decent life. If people at the margin of physical survival are, in a very real sense, robbed of their humanity, it is very problematic to calculate their utility level, much less the expected value of that utility level.

43 In addition, homelessness may create anxieties among the middle classes about violent or aberrant street behavior.

influenced by the objective prevalence of risky events, it would seem natural to examine both subjective and objective indicators.

Surveys of public opinion have gathered two different types of subjective data on economic insecurity: (1) responses to questions eliciting the respondent's level of anxiety or insecurity (e.g. EKOS, 1994); (2) subjective estimates of the probability of adverse events (e.g. Dominitz and Manski (1997), who queried respondents on their estimate of the probability they would be unemployed, or lose health insurance coverage, within the next 12 months). Both types of information can, if carefully used, be interesting.

There are advantages to a straightforward question like: "All things considered, do you now feel economically secure?" or "Do you now feel [more/less/the same] economically safe than you felt a year ago?". This sort of question asks the respondent to do the implicit aggregation over sources of risk and possibilities for risk avoidance, according to their own estimates of costs and probabilities. A direct question can be used to assess the prevalence of a general mood of insecurity, and trends in that mood. The problem is that one cannot easily assess the intensity of such a mood, and the existence of a mood offers no direct guidance as to what to do about it.

A second type of subjective question asks respondents to identify the sources of their economic anxieties. One example is the question: "What is your biggest economic worry?". Alternatively, people can be asked to mention their nightmares: "Economically, what is the worst thing that could happen to you? How likely is that to happen?" (Very likely/somewhat likely/ somewhat unlikely/very unlikely) The advantage of this class of questions is the lack of prompting, since the researcher is not imposing the categories or causes of insecurity on the respondent. As well, since respondents volunteer their areas of anxiety, emerging sources of anxiety can be tracked. If survey evidence indicates the sudden emergence of an area of concern, the specificity of responses may make it more feasible to identify a possible cause or a potential policy response. However, although prevalence data can be compared over time, the aggregation of intensity remains problematic.

Dominitz and Manski (1997) are an example of a third approach, which tries to measure economic insecurity through responses to questions eliciting subjective probabilities of specific adverse events. In their survey, respondents were asked to estimate the probability of absence of health insurance, job loss or victimisation by burglary within the next year. One of their more important findings is that respondents are willing to describe their expectations in probabilistic terms and they appear to do so in a meaningful way. Although respondents substantially over predicted the risk of burglary, the expectations and the realisations of job loss and of health insurance coverage tended to match up closely.

The problem with this approach is that it relies on the researcher's ability to identify accurately the key events which cause economic insecurity, and ignores any possible risk

avoidance options. However, the finding of a close correspondence between realisation percentages and subjective probability estimates (at least for some classes of risk) implies that one can sometimes use the former to predict the latter. One therefore has some grounds for using objective data on the prevalence of outcomes as a predictor of subjective insecurity.

Section 2 of this essay began by asking why economic insecurity might matter. Three general reasons were suggested - because governments spend a great deal of money every year to reduce economic insecurity, because people care about economic insecurity and because some of the behaviours which insecurity produces may be socially dysfunctional.

Economic insecurity is a subject that economists have tended to ignore, while risk is an issue which has been much studied. For that reason, Section 3 of this essay discussed the ways in which economic insecurity differs from economic risk. The conclusion was that economic insecurity differs systematically from economic risk, and that measures of insecurity should reflect those differences.

Section 4 then discussed measurement strategies. Much remains to be done in improving the measurement of economic insecurity, but the data which is available indicates that economic insecurity is important to individuals and has deteriorated in recent years. The underlying purpose of this essay has been to argue that economic insecurity is an important part of economic well being, and that it is time for economic insecurity to return to the economic policy agenda.

Appendix A – The Cost of Risk

To fix ideas, Figure I outlines the position of a risk averse individual (decreasing marginal utility of income) who faces some risk of income loss. It contrasts the situation of the individual in two unemployment insurance regimes -- Regime A (high benefit/high premium) and Regime B (low benefit/low premium), which are represented by aa' and bb' respectively. If the individual remains fully employed, a net income of Y_b' is received, when the low benefit unemployment insurance scheme is in operation. However, since greater generosity of unemployment insurance benefits requires higher unemployment insurance premiums, Y_a' is the individual's income in the absence of unemployment when the more generous UI scheme is in operation. If the individual experiences unemployment, total income from labour earnings and unemployment insurance benefits is Y_a if the more generous UI scheme is in operation, and Y_b under the less generous UI regime.

The expected income of each individual is determined by their relative probability and duration of unemployment. In Figure I, Y_∞ is the expected income under regime A, where point ∞ is defined by [$\alpha a'/aa' =$ probability of unemployment]. Similarly, Y_β is the expected value of income in the less generous UI regime, and $\beta b'/bb' =$ probability of unemployment under regime B. Usually, $\beta b'/bb' \dots \alpha a'/aa'$. The duration of unemployment (which, together with the level of UI benefits, determines Y_a and Y_b) is also unlikely to be the same in different UI regimes. Although it is these changes in the probability and duration of unemployment that are the focus of much of the literature on UI, one can argue that the focus should be the impact of UI on economic well being ($U_A - U_B$).

There is no reason to believe that the probability or duration of unemployment is the same under different unemployment insurance regimes -- indeed the large literature on UI is mostly about the possible impacts of the implicit incentives of unemployment insurance on the probability and duration of unemployment (e.g. see Atkinson and Micklewright, 1991). The simulation model of Osberg et al (1998) is built up from a series of estimated behavioural equations which embody the response of individuals to changes in the specific parameters of unemployment insurance in Canada - hence changes in UI regimes affect the probability and duration of unemployment.

Given these behavioural responses of individuals to changes in unemployment insurance, the relative probability of unemployment corresponding to each unemployment insurance scheme implies that the expected value of income under the less generous unemployment insurance scheme is Y_β and under the more generous scheme is Y_∞ . The levels of utility associated with these uncertain income streams are graphed on the vertical axis as U_A and U_B .

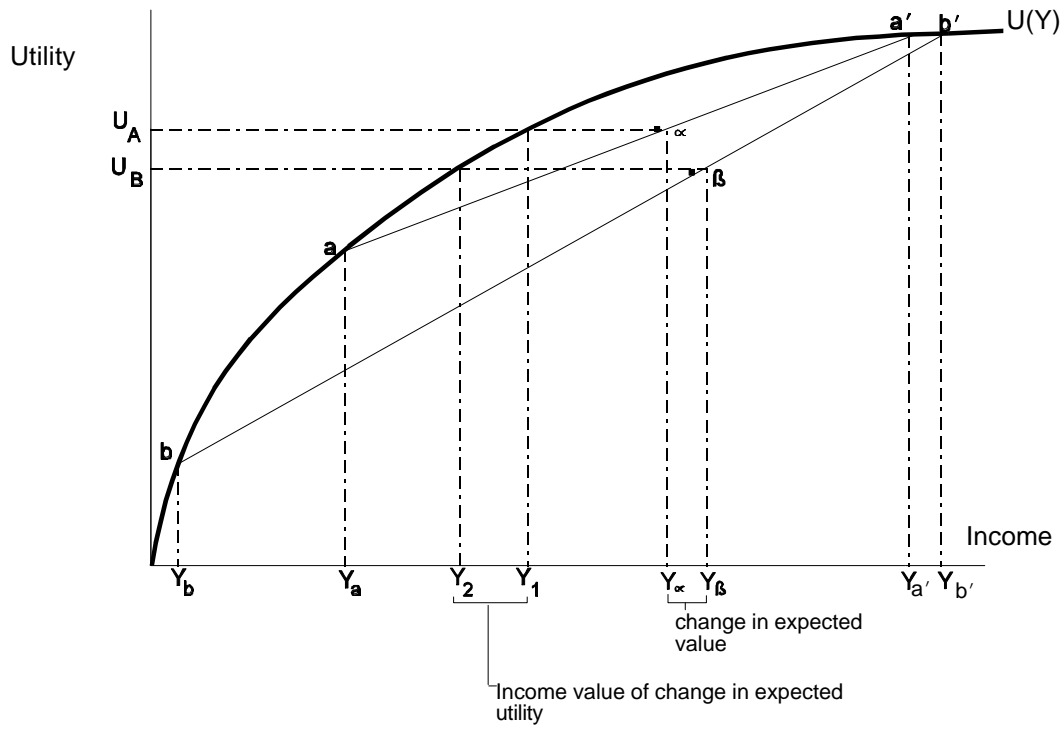
One can define "certainty equivalent income" as that certain income which would generate, for risk averse individuals, the same level of utility as they would get from an uncertain lottery with higher expected value. In Figure I, Y_1 is the certainty equivalent income which produces the same level of utility as the expected value of income (Y_∞) which

the individual would receive under the more generous unemployment insurance scheme. In Figure I, Y_α minus Y_1 represents the risk premium -- the amount which the individual would be willing to pay to rid themselves entirely of the income risk of unemployment (i.e. receive a certain income rather than the uncertain prospect of income $Y_a N$ if no unemployment and Y_a if unemployed). Similarly, Y_2 is the certain income which would generate the utility level U_B , the same level of utility as generated by the uncertain prospect of Y_b' if not unemployed and Y_b if unemployed under the less generous UI scheme. The change in utility associated with the change in unemployment insurance regimes is $U_A - U_B$ and the money equivalent of that loss in utility (the change in certainty equivalent income) is $Y_1 - Y_2$.

Note that the change in certainty equivalent income arises from changes in both the expected value and the riskiness of income flows. Both the expected value and the riskiness of income flows are influenced by the labour market environment, public policy and the individual's behavioural response to each. One should not measure the impact of changes in unemployment insurance legislation on the distribution of income solely by calculation of changes in the expected value of income. In Figure I, shifting from a more generous to a less generous unemployment insurance scheme increases the expected value of income (from Y_α to Y_β). However, the decrease in income security which this entails produces a decrease in net utility (from U_A to U_B), the income value of which is given by $Y_1 - Y_2$.¹

The contrast in Figure I between social insurance cuts which produce a gain in expected income and a loss in certainty equivalent income deserves some emphasis. If people in general prefer to avoid risk, social insurance programmes will tend to increase the well-being of the population.

Figure I



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