Asia-Pacific Economic Cooperation

Profile of SMEs and SME Issues in APEC 1990 – 2000

APEC Small and Medium Enterprises Working Group

In cooperation with

PACIFIC ECONOMIC COOPERATION COUNCIL

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INTRODUCTION AND OBJECTIVES

The purpose of this report is to provide a profile of the state of SMEs in APEC. Wherever possible, it seeks to give an overview of the level of SME activity at three time points:

1) from the outset of APEC in the early 1990s;
2) just before the "Asian Crisis" in 1997; and
3) the latest data available, which is generally about 1998, 1999 or 2000.

APEC was established in 1989. APEC did not initially have a specific focus for SME issues. The APEC ad hoc SME Policy Level Group (PLG) was foreshadowed in the leaders meetings of 1993, and given substance at two experts meetings in Indonesia in 1994. The first SME Ministerial was held in Osaka in 1994. The first meeting of the ad hoc SME PLG was held in Adelaide in 1995. The PLG was converted to a permanent Working Group in 2000. Because SMEs are a cross cutting issue SME issues are also addressed by various other APEC working groups as required.

The report seeks to give a broad overview of the "big picture" as it relates to progress on SME issues, and to ultimately provide a central access point for relevant information on APEC SMEs via the APEC and PECC secretariat web pages.

The report builds on previous work carried out by Chinese Taipei in 1994, by Japan in 1995, Malaysia in 1998, and by the author on behalf of PECC in conjunction with the Philippines in 1998 and with Canada in 1996.

EXECUTIVE SUMMARY

1. SMEs are structurally important to APEC because in the APEC economy they:
    - make up over 98% of all enterprises;
    - provide over 60% of the private sector jobs (and over 30% of total employment);
    - generate about 50% of sales or value added;
    - generate about 30% of direct exports;
    - generate about 10% of FDI by value, and over 50% by cases.

2. The average SME in APEC is quite small, and only employs about 6 or 7 people. About 75% of enterprises are micro enterprises, employing less than 5 people. These micro enterprises provide about 30% of private sector jobs. Medium sized enterprises which employ between 20 and 99 people make up only 4% of enterprises, but employ about 20% of the private sector workforce.

3. There were about 49 million SMEs in APEC in 2000, up from about 39 million in 1990. However, after allowing for statistical aberrations and new member economies, there appears to have been only about 2.7 million additional SMEs created in APEC from 1990 to 2000. This very low rate of growth (about 0.7% per annum) of SMEs in APEC is a matter of concern.

4. There are some structural changes taking place in APEC which affect SMEs:
    - There is a steady shift away from agriculture and manufacturing and towards services; services sector SME employment is now around 80% of total. Services industries are inherently more knowledge intensive, and tend to face greater non tariff impediments than tariff impediments.
    - There seems to be a slight shift towards an increasing importance of small enterprises (5 - 20 employees), mostly at the expense of micro enterprises (< 5 employees). This *may* suggest a reaction to increasing competitiveness.
    - SMEs have become relatively more important, and large firms are of declining importance in terms of jobs, except in the larger economies of USA and Japan. This *may* suggest a subtle shift of power to the larger economies at the expense of others as the economy becomes more global.

5. SME employment growth has matched or outstripped total employment growth in about half the APEC economies, but overall SME employment growth in APEC has been slightly slower than total employment growth. SMEs are still a major source of *growth* of jobs and renewal, but they have not contributed as much as might be expected, especially in some of the larger economies. On limited available evidence, SMEs create more than 70% of net new jobs. About 7% of SMEs in APEC "die" (but only about 0.7% go bankrupt) and 8% are born each year. This "churning" process is important in facilitating adaptation to change in APEC, but it is not without pain to those concerned!

6. There are some major structural imbalances between the 2010 and 2020 economies in APEC:
    - There are far fewer SMEs and entrepreneurs in 2020 economies than benchmarks would suggest are needed. In the 2010 economies there is about 1 SME for every 20 people, an entrepreneur density of 5%, while in 2020 economies there are over 115 people to every SME (an entrepreneur density of only 0.86%); there are too few active entrepreneurs managing SMEs in many 2020 economies.
    - Economies in APEC targeting 2020 (mostly the developing economies) have 80% of the people, 67% of APEC's SMEs and 61% of the people employed by SMEs. There is a structural imbalance in favour of 2010 economies, which have only 19% of the people, but 33% of the SMEs and 39% of the people employed by SMEs. For example, China has 49% of APEC's people, but only 16.6% of APEC's SMEs.
    - Micro firms are much more important in 2020 economies, in terms of proportion of both enterprises and employment than in 2010 economies. The 2020 economies in APEC have about 78.8% micro enterprises, but only 10.7% small firms and 2.6% middle sized firms, as against the 2010 economies having 70.7%, 20.9% and 5.3% respectively. Micro enterprises in 2020 economies generate about 40% of private sector employment, as against only 25% in 2010 economies. There is some evidence of a "missing middle" in the 2020 economies. For example there is an under representation of medium sized firms in many 2020 APEC

economies which will make it harder those economies to develop an internationally competitive SME sector, and a dynamic entrepreneurial base for growth.

- There is still a substantial "digital divide" between the 2010 and 2020 economies. The 2010 economies have 17 times as many servers, 3.5 times as many PCs, and 2.6 times as many internet users per SME than do the 2020 economies. However the 2020 economies are catching up relatively quickly.

7. SMEs do not appear to have benefited as much from APEC over the last decade as they might have. In key APEC policy areas (access to information, finance, HRD, technology, access to markets) there is little by way of monitoring of progress, so it is hard to tell if APEC is having any effect. However:

- SMEs appear to remain substantially under represented in international trade and FDI relative to their contribution in domestic areas, and relative to larger firms. Available evidence suggests that there is the potential for SMEs to add about $1 trillion in trade and about $150 billion in FDI per annum to the APEC economy if structural changes allow a simpler, more business friendly, more integrated APEC economy to emerge.
- Through much of the decade there seems to have been a decline in the amount of bank finance being made available to SMEs, relative to large firms.
- SMEs appear to have maintained a relatively high productivity growth (output per person) of about 4% per annum, suggesting a response to increased competitive pressures.
- The proportion of women managers and own account workers appears to be about 30% of all managers, and has increased only slightly over the decade.

8. It is now common to all APEC economies that they have adopted policies and programs which are designed to support SMEs, and for the most part are aimed at making SMEs more globally competitive. However, there are some major differences in the approaches used to actually do this. For example, about half of the APEC economies have adopted an "SME Basic Law" or "SME Magna Carta", and half have not. About 40% now adopt a non discriminatory approach, where they develop policies aimed at supporting firms no matter what their size, and about 60% adopt policies which intentionally target and discriminate in favour of SMEs. No two economies have exactly the same "package" of policy responses.

9. Over the course of the first APEC decade there has been a clear increase in the number of economies adopting policies to support SMEs. There have been sharp increases in the proportion of economies adopting one stop shops, having a single agency responsible for SMEs, providing micro finance, venture capital support, business matching services, access to government procurement markets for SMEs, and support for technology development, commercialisation, and IT use in SMEs.

10. There remain areas where policy approaches diverge, or where some economies lag behind others. For example, only 25% of APEC economies have a single registration number for SMEs, or make any systematic attempt to monitor the administrative burden imposed on SMEs by governments. Some 40% of APEC economies still do not have a legislative requirement that financial providers cannot discriminate on the basis of sex or ethnicity or age. Similarly, 40% do not have programs designed specifically to encourage start up/success of businesses owned by minorities or women.

11. About 85% of the average member economy's SME budget is allocated to just three areas: finance, technology and HRD. There seems to be shift in both 2010 and 2020 economies to channeling more assistance via financial programs, rather than specific allocation on HRD or technology. On the data provided by economies, the 2010 economies had an average allocation per SME about five times that of the 2020 economy average.

POLICY IMPLICATIONS

POLICY AIMS

APEC has five major aims:

1. Sustain the growth and development of the region for the good of its people;
2. Contribute to the growth and development of the world economy;
3. Enhance the positive gains arising from increasing economic interdependence;
4. Develop an open multilateral trading system; and
5. Reduce barriers to trade in goods, services and investment.

APEC has focussed mostly on aims 4 and 5 (and especially 5, via CTI activity) as a means of achieving the first two. In future, the benefits to APEC may flow less from the "rising tide" benefiting all the ships, as from the fast moving SMEs that can ride the tsunamis of change. As we move into the second APEC decade, aim 3 may become much more important as a means of achieving aims 1 and 2. SMEs are critical in enhancing and capturing the gains from economic integration and interdependence, and so this makes SME activity in APEC more important. SME Ministers and agencies need to take a greater and more active role in the three legged race of capacity building, facilitation, and liberalisation.

APEC SME POLICY IMPLICATIONS

1. APEC needs to assist and work towards creating more entrepreneurs and SMEs, especially in 2020 economies: better APEC - private sector collaboration.

Some 50 to 70 million new SMEs need to be created in APEC in the next two decades if 2020 economies are to contribute fully, and be internationally competitive (see section 2.5). The sheer magnitude of this challenge is beyond the resources of member governments alone. To effectively address the challenge almost certainly means public-private cooperation, especially in regard to HRD to encourage and train entrepreneurs. Differences in policy emphasis (see section 7.1) mean that this needs some sensitive and cooperative approaches between economies. APEC could take a leading role in developing a framework for cooperation between member economies and the private sector to achieve otherwise unachievable targets.

2. APEC needs to develop a more conducive business environment for SMEs which facilitates start-up, growth and exit

The need for a more conducive business environment is widely recognised already. All APEC economies now have policies aimed at making their SMEs more internationally competitive, and all member governments have sought to provide a conducive business environment for their SMEs to facilitate this end (see section 7). The problem at an APEC level is whether there is an "ideal" business environment. Each economy (and each province and locality) sometimes has a different perspective on what an "ideal" business environment might look like for its own SMEs. Some of this difference in approach is readily justified by differences in levels of economic development or in resources. For example, there is a very distinct difference between 2010 and 2020 economies in terms of some key SME indicators, such as the digital divide, or access to technology (see section 7). There is not necessarily an "ideal " business policy environment in the sense of a "best practice" or "one size fits all" set of policy conditions suited to all economies at all times under all conditions. This means that shaping the business policy environment, particularly in relation to SMEs and entrepreneurs, is a more sensitive process of adapting to local and to global conditions.

However, at the most general policy level, the business environment should encourage the start up, growth, and the exit of firms where appropriate. Most start ups are micro firms, and it is clear that there are many initiatives that could be taken at an APEC level (such as microfinance, cooperation on training programs etc) that would facilitate start up. Similarly, the growth of SMEs is often impeded by unnecessary government regulations and institutional shortcomings. At an APEC level it should be possible to monitor these and work towards improvements. Finally, the exit of firms is a normal aspect of a healthy and dynamic economy and the process of firm birth and death is an important

aspect in economic renewal and adjustment. Across APEC, on average about 7% of firms exit each year (though only one tenth of these go bankrupt - see section 4.3) . At individual economy level, APEC should encourage members to make it easier for underperforming SMEs to exit.

There are five specific areas where APEC could initiate action to improve the business environment for SMEs:

2.1. Trade and non trade barriers affecting SMEs need to be systematically identified and addressed

SMEs have more opportunities than ever before, but they seem to be growing at less than the rate of the international economy. SMEs contribute about 30% or so of direct exports, which is about what they seemed to contribute at the start of the 1990's, and it is less than might be expected in an increasingly globalised economy (see section 5). That is to say, SMEs are rising on the rising tide of trade liberalisation, but they are not surfing the wave of future globalisation. Part of the problem here is the paucity of statistics on SME international activity. Part of it is that the trade barriers that *have* been addressed so far by APEC and WTO tend to favour larger firms, have been less focussed on services (which is where 80% of SMEs operate) and do not address the more specific non-border non-trade impediments that SMEs tend to be obstructed by when operating across borders. These impediments need to be identified and addressed more aggressively by means of an ongoing system coordinated by APEC in cooperation with WTO and OECD. The potential gains are large from moving toward a more business friendly, more integrated, and more interdependent APEC economy which allows SMEs to move around as easily as they can in their local economy, and could be as much as $ 1 trillion per year (section 5.3).

2.2. Reduce the administrative burden; an APEC wide business registration number

The administrative burden imposed by governments falls disproportionately heavily on SMEs. Cooperation between APEC economies is essential to ensure that regulations, incentives, policies and programs work in harmony, and do not unnecessarily complicate or impede business development. Few economies make any systematic attempt to monitor the size of the burden (see section 7.7). An APEC wide program of monitoring could assist members identify areas where they could make improvements. One simple initiative worth considering is an APEC wide business registration number, so that compliance reporting could be greatly simplified for small firms.

2.3 More integrated and efficient financial markets

Access to finance has long been recognised in APEC as important to SMEs. Finance markets have been a driving force of globalisation for many years. Evidence suggests that SMEs have found it more difficult in many economies to get bank finance during the first APEC decade (see section 6.2). Finance markets, especially those in 2020 economies appear to remain relatively inefficient in assessing risks accurately, and in providing debt and equity at rates commensurate with those risks. This makes it difficult for successful SMEs to emerge and grow. There is no simple policy solution to this problem, but there is a strong case for APEC to invite Central Banks, Prudential Regulators, major private sector financial services providers, and international organisations such as OECD, IMF and ADB to collaborate with each other and with APEC to examine the problems and the options for addressing them.

2.4 Continue to improve access to programs and resources developed by members

Member economies already provide a range of programs and services to their own SMEs. APEC has facilitated the sharing of these (for example by means of provision of training and seminars), improved access to services by SMEs from outside the member economy (for example, by means of the APEC PECC SME Information Portal Hub), and the sharing of experiences between members (for example, through the usual processes of reporting at SME WG and Ministerial meetings). APEC could set up an ongoing process of review within SPAN to find ways to strengthen this activity.

2.5 Women managers in SMEs

The proportion of women managers in APEC appears to be stuck at around 30% of total (see section 6.6). Is this a "natural level" or are there unnecessary impediments which stop the proportion rising to a more logical "natural level" of about 50%? There are still many unnecessary impediments to the

greater participation of women entrepreneurs where APEC could take a lead in helping members to identify the impediments and take appropriate policy action. For example, some 40% of member economies still have no legislation prohibiting discrimination on the basis of gender in the provision of finance to SMEs (see section 7.7).

3. Better monitoring of progress on SME issues

There is a need for better information and statistics on SMEs in APEC. Although it is widely accepted in APEC that SMEs are an important part of the APEC economy, relatively little is *actually* known, for example, about the contribution of SMEs to the economy, or of the impact of structural changes on SMEs, or about the performance of SMEs, or about the comparative resources being devoted to policy assistance to SMEs. What evidence is available suggests that APEC has not been as effective as it might be in developing SMEs. At present there is no systematic way of monitoring the changes in these areas. This is despite the fact that it would be quite simple to set up effective monitoring processes at relatively low cost. Of the 21 APEC economies, seven (covering more than half the SMEs in APEC) *already* carry out and publish some form of systematic review of their SMEs each year or so, and about twelve have reasonably good, up-to-date statistics on SMEs that could be brought into comparable form within reasonable resource constraints (see section 6).

Most of the APEC and OECD economies collect a business-based VAT (Value Added Tax) or equivalent. In principle, it would not be difficult to link this to data on the size of the business unit. This would allow policy makers a much better and more up to date idea of the contribution of SMEs to the economy and to exports. Since 70% or so of net job creation seems to come from a relatively small proportion of SMEs, this information could be extremely useful in understanding how particular sectors are contributing to growth in different economies at different times and at different points in the business cycle.

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1. What is an SME? SME Definitions and Statistical Issues

1.1 Definitions of SMEs in APEC

Key Points:

- ***The definitions used for an SME in APEC vary widely. In very general terms, a common feature is that an SME in APEC employs less than 100 people, but there are a lot of exceptions. There is no common agreement on what distinguishes a micro firm from a small or a medium one, but generally a micro enterprise employs less than 5 people.***

- ***Definitions used for statistical purposes can vary from those used for policy or program purposes (for example, to determine eligibility for special assistance). Definitions vary by industry, with manufacturing usually having a larger cut-off than, say, services industry SMEs. The most common criterion is the number employed, but capitalisation, assets, sales or turnover and production capacity are also used by various economies.***

- ***It would be a relatively simple matter to compile information about SMEs in a standard format and definition, since the data are usually collected in a way that permits this. However APEC has not put a high priority on doing so.***

Table 1.1.1 Main elements of the definitions of SMEs in APEC for statistical purposes

	employ	n	capital	assets	sales	production capacity
Australia	200	yes				
Brunei Darussalam	100	ns				
Canada	499	yes			▲	
Chile	200	ns			▲	
China (2)	500	no		▲		▲
Hong Kong, China	100	yes				
Indonesia	100	yes		▲	▲	
Japan (1)	300	yes	▲			
Korea	300	yes				
Malaysia	150	ns			▲	
Mexico (4)	500	yes				
New Zealand	19	yes				
Peru (5)	19	ns				
PNG	?	ns				
Philippines	200	yes		▲	▲	
Russian Federation (6)	500	ns				
Singapore	100	yes		▲		
Chinese Taipei (3)	200	yes	▲		▲	
Thailand	200	ns		▲		
USA	499	yes				
Viet Nam	200	yes	▲			

Sources: - Definitions provided by economies on request, APEC (1994) The APEC survey on SMEs 1994, and APEC (1998) Profile of SMEs 1998, and Hall (1998) APEC SME Indicators.
Notes: full definitions can be found in section 1.3
employ: figures indicate the maximum number of employees in a firm defined as an SME.
n : "yes" means that information on the actual number of employees is collected, so it is relatively easy to stratify by employment size. ns indicates that those economies were not surveyed.
(1) Japan changed its definitions in 1999 to reduce the criteria for SMEs in services from 100 to 50 employees
(2) China uses a number of different definitions which are usually industry specific.
(3) Chinese Taipei relaxed the definition of SMEs in 2000.
(4) Mexico redefined micro, small, medium and large enterprises according to the industry, commerce and service sectors in 1999.
(5) Peru has no specific definition, but generally a small firm is defined as having less than 20 employees.
(6) Russian Federation definition from 2001 SME Observatory and differs from the legal definition of small and medium firms used in Russia.

The only really common characteristic of SMEs is that they are "not-large"; that is whether a firm is really an SME or not is relative. What constitutes an SME varies widely. SMEs may range from a part time business with no employees, for example, exchanging money or selling handicrafts in Indonesia, to a semiconductor manufacturer employing hundreds of people in Japan and China. They may range from fast growing firms, to private family firms that have not changed much for decades. They range from SMEs which are independent or stand-alone businesses, to SMEs which are inextricably part of a group, such as those which are part of an international subcontracting network, or to those with technology and investment partners based abroad, or to those which are part of a family based nanyang society or cluster.

All but a few of the APEC economies have a definition for SMEs for statistical purposes. Most also have definitions for policy purposes, and to complicate matters further these definitions often differ from the definition used for statistical purposes, and also differ by industry and by policy program. As table 1.1.1 illustrates, there is considerable diversity in the definitions even for statistical purposes. The number of employees is the most common measure, though many definitions also use a monetary measure (such as capitalisation, or sales). Even with the number employed there is considerable diversity; in most economies an SME is defined as having less than 100 employees (and even fewer in specific industries such as services or retail), but in some of the larger economies this ceiling is raised to 300 or even 500 employees.

Does this lack of precision matter? In some circumstances it is a real problem, but it depends on the reasons for defining an SME. Obviously a firm with only one or two employees is not the same as a firm with 499, and this is important when it comes to the specifics of finance, or training programs for example. However, for many purposes it is convenient to split the economy into micro, small, medium, and large so as to get a better idea of the "big picture". If we recognise that this distinction is somewhat arbitrary, then the real issues are that we are conscious of the limitations of the definitions, and that we are comparing equals with equals. Making comparisons therefore really requires some reasonably comparable size classes. Unfortunately the size classes used differ across economies. Even though most statistical agencies in APEC gather SME data in such a way that the data *can* be presented in common size classes (for example, >5, 5 - 9, 10 - 19), it takes time and money to present it in a common format, and thus it is usually not done. APEC has not put a high priority on this, and so comparisons across economies have to be made with some caution.

Most SMEs are actually very small, and about 70% to 80% of them employ less than 5 people. There is only a very small percentage of firms, typically ranging from about 1% to about 4%, which have more than 100 employees. As a rough rule of thumb then, it is useful to see the vast bulk of SMEs as having *less than* 100 employees, and most have less than 20 employees. Where does 'small' finish and 'medium' begin? Again this is a rather arbitrary matter. In some sections below an attempt is made to render SMEs in comparable terms, by seeking to define an SME as employing less than 100 people. A micro firm has less than 5 employees (and includes non employing enterprises), a small firm has between 5 and 19, and a medium firm between 20 and 99 employees.

Because micro firms make up such a large proportion of the population, there is some specific interest in the role of micro enterprises in APEC. There is no consistent definition of a micro enterprise in APEC. Table 1.1.2 summarises the available evidence on the role of micro enterprises in APEC. This shows that of the 21 APEC economies, 10 have some definition or category of micro enterprise, and most of these use a cut off of about 5 employees. In practice, most micro enterprises are likely to be non-employing; they do not actually employ anyone, but they do create a job and some income, even if only a part time job, for the entrepreneur. These micro firms make up the great majority of enterprises, usually comprising around 60% to 80% of all enterprises. Their contribution to employment is usually disproportionately small, and they typically contribute only about 10% to 40% of available jobs. The role of micro enterprises in creating jobs tends to be greater in the 2020 economies, where they provide a higher proportion of jobs, and where they create jobs and opportunities that would not otherwise be available. Because many micro enterprises are informal, especially in the 2020 economies, they are difficult to measure, so their role is certainly underestimated by these figures.

Table 1.1.2 Summary of definitions and contribution of micro enterprises in APEC

	2 micro enterprise definition employees	*3* % Jobs in micro enterprises	*4* % establishments in micro enterprises	*5* definitions used in columns 3 and 4
Australia	<5	25.9	69.9	non employing plus 1 - 4
Brunei Darussalam	<5		42.0	
Canada	<5	8.9	58.8	1-4 payroll employment only (excludes agriculture and non-employing)
Chile	<4	40.6	82.1	1 - 4
China	no definition			
Hong Kong, China	no definition	31.1	86.8	1 - 9
Indonesia	no response			
Japan	20 or fewer : Manufacturing, 5 or fewer : Trade and services	7.9	74.5	
Korea	Manufacturing, Mining, Transportation & Communication : Less than 50 employees Others : Less than 10 employees	31.2	72.7	1 - 4 does not include manufacturing, which starts at 5. Does not include non employing. Manufacturing and services only.
Malaysia	no definition			
Mexico	<5 commerce <20 services <30 industry		91.6	
New Zealand		23	84.0	0 - 5
PNG	no response			
Peru	varies by industry, but up to 20 employees	na	na	
Philippines	1 to 9	38.9	90.7	1 - 5
Russian Federation	no response			
Singapore		7.1	67.4	service <5, manufacturing not included
Chinese Taipei	< 5 or <20		69.8	service < 5, manufacturing < 20
Thailand	no definition		79.0	1- 4
USA	0 to <5	5.2	60.5	0 - 4 (does not include non employing)
Viet Nam	no response			

Source: See appendix E APEC Micro enterprises Policy Survey

1.2 Statistical and measurement issues and conventions

The aim of the report is to obtain as comprehensive and comparable a picture of SMEs in APEC as is possible to do during the first "APEC decade" from about 1990 to 2000. To this end, it has been necessary to adopt several conventions. These are as follow:

- **Snapshots; actual and near dates.** The report seeks to compare APEC SMEs at three "snapshot" points in time: at the beginning of the decade, 1990 (or roughly the inception of APEC SME activity); 1996 (or just prior to the Asian Crisis); and as recent as possible (or for practical terms usually 2000, 1999 or 1998). Relevant data are not always available for particular years in all economies, so this requires using the nearest available date. The actual dates used are specified in the notes to the tables.

- **Continuous series.** Wherever possible, the same series is used across time for a given economy. However in some cases it is necessary to use several different sources. This is noted in the notes to the tables.

- **Comparable measures.** Wherever possible, comparable measures are used across economies, but this is sometimes difficult. For example, the treatment of non employing SMEs varies between economies; non employing SMEs do not actually employ anyone, but they do create a job for the owner. Some economies do not count these jobs, and some do. The approach adopted is specified in the notes to the tables.

- **SME definitions.** Two approaches are adopted in the report. The *first* is to use the definition adopted by the economy concerned (and specified in table 1.1.1 and section 1.3). The *second* approach is to use a standard definition of an SME across all economies; for this purpose an SME is defined as employing less than 100 people, a medium sized SME employs between 20 and 99 people, a small firm between 5 and 19 , and a micro firm less than 5 employees and includes self employed managers. Which approach is adopted is specified in the notes to each table.

- **Sources.** Wherever possible, original sources have been used and are quoted, either at the foot of each table, or in a secondary table of notes and sources. There are three different types of sources. First are published documents and reports. These are listed in the references at the end of the report. Second, are sources on the world wide web. A list of web links is provided in Appendix A, and specific sites are given in the notes to the tables. Note that some websites change and some may no longer be available. Third is information sourced as a result of specific information requests to economies. The information requests and questionnaires are contained in Appendices C, D and E at the end of the report. In some cases this leads to information which is not published and thus cannot be referenced in a conventional sense, except to the originating organisation. This is usually listed in the notes to the tables, and a glossary of abbreviations is given in Appendix F at the end of the report.

- **Averages.** A distinction is made between weighted and unweighted averages. Weighted averages are weighted by the relative size of each economy, so figures for, say, USA or China are given a greater weight than, say, the figure for Hong Kong China or Singapore in calculating the average. The weight used is specified in the notes. Unweighted averages are just simple arithmetic averages of the relevant non zero figures.

- **2010 and 2020.** A distinction is made between those economies seeking to achieve 2010 APEC trade liberalisation targets, and those seeking to meet 2020 targets. The former are generally more "developed" economies. In the tables these 2010 economies are identified in italics.

- **Coverage.** Although an effort was made to gather comparable information on all 21 APEC economies this was not always possible. Indonesia, Papua New Guinea and Viet Nam did not respond at all to any of the official requests for information. Any information on these economies is based only on publicly researched sources. Because there is very little information available on PNG it is often excluded from the tables and analysis. Malaysia did respond with some information, but the information provided related mostly to only manufacturing (instead of to SMEs

more generally) and is thus not readily comparable. Malaysia's response was not made until September 2002, and some of it could not be incorporated because of time pressures.

- **Table numbering.** Tables which have been developed specifically for this project are numbered numerically by section, for example Table 6.2.1. Tables which have been drawn directly from other sources are designated alphabetically, for example Table 6.2.a.

1.3 SME definitions by economy

AUSTRALIA

micro - less than 5 people employed
small - more than 5 but less than 20
small business - less than 20 employees
medium - more than 20 but less than 200

BRUNEI DARUSSALAM

micro 0 - 5 employees
small 6 - 50 employees
medium 51 - 100 employees

CANADA

	small	medium	SME
goods	< 100	101 - 500	< 500
services	< 50	51 - 500	< 500

CHILE

	employees	sales
micro	<4	< $USD 74500
small	5 - 49	< $US 776,566
medium	50 -199	< $USD 1.5 million
large	>200	> 3.1 million

CHINA PRC

China uses a complex classification system for enterprise statistics.

This distinguishes enterprises on the basis of ownership. For example between:

- Urban enterprises are defined as: State Owned; Collectively owned; Household and Private; and Others (for example joint venture).
- Rural enterprises are defined as being TVEs (town and village enterprises), and household and private.

As an approximate guide, state owned enterprises are usually medium or large, household and private are mostly small and medium, collectively owned are medium and TVEs are small or medium.

The basic defining characteristics used to distinguish SMEs have been changed at least four times. In the 1950s the definition was based on number of employees, in 1962 this was changed to the amount of fixed assets, it was changed again in 1978 to production capacity, and in 1998 the definitions were changed to industry specific definitions based on a combination of fixed assets (calculated on original book value) and production capacity. The net result is that for most of the 1990s China used different definitions for different industries.

HONG KONG CHINA

Manufacturing <100 employees
Non manufacturing < 50 employees

INDONESIA

Badan Pusat Statistik definition:

household and cottage 1-4
small 5 -19
medium 20 - 99

large enterprises 100+

Department of Cooperatives definitions:

Total assets:

small< USD 20,000

medium < USD 1,000,000

Sales:

small <USD 100,000

medium < USD 5,000,000

employees <100

JAPAN

	employees	million Yen or less
manufacturing	300 or less	300
wholesale	100 or less	100
retail	50 or less	50
services	100 or less (previously 50 or less)	50

Definition of SMEs was changed in 1999.

KOREA

	small	medium
mining manufacturing and transportation	50	51 - 300
construction	30	31 - 200
commerce and other services	10	11 - 20

MALAYSIA

Does not usually define SMEs as such, but refers to SMIs (or industries which are predominantly SMEs in manufacturing <150 employees, with sales <Rgt 25 million). The definition provided by Malaysia for Manufacturing SMEs in 2002 is:

Employment : not more than 150

Annual sales turnover : not more than USD 6.6 million

MEXICO

After 1999:

micro < 30 employees

small 31 < 100 employees

medium 101 < 500 employees

	employees INDUSTRY	employees COMMERCE	employees SERVICES
Micro	0-30	0 - 5	0 - 20
Small	31 -100	6 -20	21- 50
Medium	105 - 500	21 -100	51-100
Large	501 – on	101 – on	101 on

NEW ZEALAND

19 or fewer staff

PNG

< 200 employees

PERU

Small business - sales for last three years of <USD 17 million pa

Varying definitions for different purposes.

PHILIPPINES

	employees	assets
small	99 or less	P 1.5 mill to P 15 million
medium	100 - 199	P 15 mill to P 60 million

RUSSIAN FEDERATION

Self employed or commercial with less than 25% ownership of authorised capital by public sector bodies, charities or other businesses, and less than:

100 employees in industry
80 in agriculture
60 in scientific and retail
50 in wholesale
30 in retail
50 in other sectors.

The Russian SME Observatory 2001 uses the definition by employees:

micro 1 - 5 and 6 - 9
small 10 - 49 and 50 - 99
medium 100 - 249 and 250 - 500.

SINGAPORE

	employees	assets
manufacturing		<$SIN 15 million
services	<200	<SIN 15 million

CHINESE TAIPEI

	employees	operating revenue	paid up capital
Manufacturing, construction, mining and quarrying	<200		< NT $80 million
Commerce Transport and other Services	<50	< NT $100 million	

source: White Paper on SMEs 2000 p 276.

THAILAND

	employees	fixed assets
small scale	<50	<20 million Baht
medium	50 -200	20 - 100 million Baht

source http://aeup.brel.com/sme/sme16.html. These are Ministry of Industry definitions. The Industrial Finance Corporation, the Small Industry Finance Corporation, and Bank of Thailand define small industries as < 20 million Baht)

USA

Manufacturing <500 employees
Non manufacturing <USD 5m sales pa

VIET NAM

Decree 90, dated November 23, 2001. The decree states that SMEs are business and production establishments which have a registered capital not exceeding VND10 billion (US$670,000) and use an average of around 300 labourers per annum.

	employees	capital
small	<30	<D1 billion
medium	31 -200	D1 billion to D 4 billion

2. The Number of SMEs in APEC

2.1 The total number of SMEs

Key points:

- ***There were an estimated 49 million non agricultural SMEs in APEC in 2000, up from about 39 or 40 million in 1990. However, much of this apparent growth is not genuine growth; it is a result of changed statistical measurements, and the addition of new member economies to APEC. It is a matter of some concern that there appears to have been very little net real growth in the number of SMEs over the past decade in APEC; only about 2.7 million additional SMEs have actually been created in the decade, an annualised simple growth rate of only 0.7%.***

- ***About half the SMEs in APEC are in China and Indonesia.***

- ***About two thirds of SMEs are in economies which target the 2020 deadline for APEC trade liberalisation, and about one third in economies targeting 2010.***

- ***SMEs are structurally important in all economies, and make up well over 95% of all businesses.***

Table 2.1.1 Numbers of non agricultural SMEs in APEC

	SME non agric 1990	SME non agric 1996	SME non agric latest available figures	best guess for 2000	SMEs as % of all firms ##
Australia	757100	895500	1111900	1111900	97
Brunei Darussalam	3856	4085	5000	5000	98
Canada	855840	879335	904194	925000	98
Chile	423021	445299	455363	500000	16
China	8608200	7253406	7967042	8000000	99
Hong Kong, China	277886	287904	291871	292000	98
Indonesia	12045600	16416020	16000000	16000000	98
Japan	6484264	6433557	6139735	6139735	99
Korea	2094637	2607710	2672983	2700000	99
Malaysia	0	0	0	19000	84
Mexico	1302757	2179631	2719591	2854266	99
New Zealand	159564	218044	191908	192000	99
Peru	# 406966	453667	450979	460000	
Philippines	77807	99767	817976	817976	99
Russian Federation	# 896000	886500	850786	850000	86
Singapore	31468	47001	53912	54000	91
Chinese Taipei	791663	991881	1047915	1050000	98
Thailand	63230	0	311518	350000	96
USA	5359421	5691430	6003593	6303593	96
Viet Nam	# 1000	0	30000	200000	
Total	**40,640,280**	**45,790,737**	**48,026,266**	**48,824,470**	
total 2010	**15,140,227**	**15,889,951**	**16,200,391**	**16,568,228**	
total 2020	**25,500,053**	**29,900,786**	**31,825,875**	**32,256,242**	
% 2010	**37**	**35**	**34**	**34**	
% 2020	**63**	**65**	**66**	**66**	

Notes: see table of notes to table 2.1.1. below for notes, actual dates and sources.
Blanks or 0 indicate data are not available.
Figures in the columns 2 - 5 are for non agricultural SMEs, and include state owned SMEs in some cases (notably China).
Peru, Russian Federation and Viet Nam were not part of APEC in 1990.

sourced from APEC (1998) Profile of SMEs in APEC Economies.
See section 3.5 for breakdown by industry which shows the role of agricultural SMEs.
Best guess (column 5) - is based on latest available figure (column 4) wherever possible, however it is ONLY a guesstimate. This is necessary because of missing data.
% 2010 - gives percentage of SMEs in 2010 economies
% 2020 - gives percentage of SMEs in 2020 economies
2010 - economies seeking to meet 2010 targets (*identified in italics*)
2020 - economies seeking to meet 2020 targets
The definition of an SME is that used by the economy concerned.

Knowing the total number of SMEs in APEC is important for various reasons. For example:

First, SMEs are a "seedbed" for larger enterprises and thus for growth and innovation. The number of SMEs in an economy is *one* basic indicator of the entrepreneurial health and competitiveness of that economy. As barriers to trade and investment are reduced in APEC, the competition between economies is likely to increase, and a healthy SME sector will become an important asset. As discussed in section 2.3, there is a very wide variation in the demographics of SMEs in APEC, with several major economies seeming to have "entrepreneurial engines" which are underpowered.

Second, SMEs can act as a "cushion" to rapid change. Change is an inevitable consequence of globalisation, and APEC is a major engine of globalisation. There is significant resistance to change. However, people are less likely to resist pressures of change if they can see that there are new opportunities which outweigh the threats. Each year a percentage of SMEs starts up and a percentage closes down (of which less than about one tenth go into bankruptcy). The "churn" of SMEs varies from one economy to another and varies over time (see section 4.3) and in APEC it ranges from about 15% per annum in New Zealand to about 3% in Japan. Larger firms are typically net destroyers of jobs, while SMEs are net creators (see section 4.2), so having a large and growing population of SMEs provides a significant "cushion" to change.

Third, SMEs are a significant market in their own right. There is something of a symbiotic relation between SMEs and larger firms which provide services such as banking, finance, telecommunications, distribution, heavy infrastructure etc. If these larger firms can see a critical mass and growing market of SMEs they are more likely to want to compete to provide services, and this in turn assists SMEs.

Fourth, SMEs are still structurally very important. SMEs make up over 98% of enterprises or establishments in all but a few economies, and SMEs provide about 60% of the private sector jobs in APEC. Because there are so many SMEs and because they employ so many people, they are of special social and political importance. Definitional artefacts or structural reasons explain the economies where the percentage of SMEs is lower, so this does not mean that SMEs are less important in those economies. For example, Malaysia (84%) does not define SMEs as such, but instead focuses on SMIs or Small and Medium Industries, and for planning purposes these have tended to emphasise certain types of industry, mostly in manufacturing where SMEs are relatively less important. Similarly, the Russian SME population was relatively small in 1999, but was growing rapidly.

The figures for the number of SMEs in APEC are difficult to arrive at with any precision. Definitions vary, and so do statistical collection processes. For example USA does not include about 8 to 10 million non employing businesses in the statistics for SMEs provided by the SBA (Small Business Administration). If these non employing business are included, the total number of SMEs in USA is closer to 13 to 15 million instead of the 5.6 million quoted in table 2.1.1. Many small SMEs are non employing, part time, or unincorporated businesses and are often not even counted by some statistical agencies. Not all economies maintain a business register and not all have systematic ways of identifying a new entity or of deleting a non continuing entity (that is, an entity which as "died") from the statistical record.

The figure of about 49 million SMEs in APEC in 2000 is an approximation, but it is about as accurate as can be obtained given the circumstances. This suggests that the total number of SMEs has "grown" by about 9.5 million, from about 39.3 million around 1990 (a figure which excludes those

member economies which joined APEC later, that is Peru, Russian Federation and Viet Nam) to about 49 million in 2000, or by about 22% or so over the decade from 1990 to 2000. However, some of this is not "real" growth in real SMEs, it is more a matter of the way the statistics have changed, or the addition of new member economies in APEC. Section 4.1 provides a more detailed analysis of the breakdown of this growth by economy, and by time period, and compares this with GDP and employment growth. Table 2.1.2 below attempts to show the reasons behind the apparent growth. There are three main reasons for the changes (labelled as reason 1, 2 and 3 in table 2.1.2):

1. The addition of new economies (Peru, Russian Federation, and Viet Nam) to APEC has added about 1.5 million of the 9.6 million increase in SMEs in APEC from 1990 to 2000.

2. Improved statistics, statistical aberrations, or redefinition. For example, some figures for 1990 only take account of manufacturing or industrial SMEs, while later statistics also include services, or statistical collection techniques have improved. This affects the figures for Indonesia, Philippines and Thailand. This reason has added nearly 4.98 million of the 9.5 million in growth over the decade, and most of this is from Indonesia prior to the 1997 Asian financial crisis. Some of this growth could also be real growth, but it is unclear how much.

3. Actual growth in the number of SMEs in economies. This has added only 2.9 million SMEs in the decade. This is about 7% total growth over the decade, or about 0.7% annual simple growth; much less than the growth of GDP. In China and Japan the number of SMEs actually shrank and "destroyed" nearly 952,000 SMEs (although the number of privately owned SMEs in China rose quickly - see section 3.2 for more detail). Most of the growth in the number of SMEs has been in Australia, USA, Korea (though only to 1996, and even then there is a question of the accuracy of the statistical comparison), Mexico (though some of this more correctly attributed to better statistics), and Chinese Taipei.

Table 2.1.2 Sources of additional SMEs in APEC 1990 - 2000

	% change from 1990 to 2000 best guess	total number of SMEs added	Reason for increase
Australia	47	354,800	3
Brunei Darussalam	30	1,144	3
Canada	8	69,160	3
Chile	18	76,979	3
China	-7	- 608,200	3
Hong Kong, China	5	14,114	3
Indonesia	33	3,954,400	2
Japan	-5	-344,529	3
Korea	29	605,363	3
Mexico	119	1,551,509	3
New Zealand	20	32,436	3
Peru	13	460,000	1
Philippines	951	740,169	2
Russian Federation	-5	850,000	1
Singapore	72	22,532	3
Chinese Taipei	33	258,337	3
Thailand	454	286,770	2
USA	18	944,172	3
Viet Nam	19900	200,000	1
new (1)	**15.9**	**1,510,000**	
statistical (2)	**52.6**	**4,981,339**	
actual (3)	**31.4**	**2,977,817**	
total	**100.0**	**9,469,156**	

It is a matter of some concern that there appears to have been very little net real growth in the number of SMEs over the past decade in APEC; at best there seems to have been only about 2.97 million net

increase, or about 7% over ten years. This is a matter of some serious concern; it suggests that SMEs may not have benefited as much as they should have from APEC. These issues are dealt with in more detail in section 4.

Notes to Table 2.1.1 and Table 2.1.2
(where applicable, the first date in a cell indicates the date for the data used in the table)

	1990 or nearest date	1996 or nearest date	latest available figures
Australia	1991	1995/6 ABS 1321.0 1999 Small Business in Australia	1999/00 ABS 1321.0 1999 - 2000 Small business in Australia Update
Brunei Darussalam	1991		1999 no data available - estimate only
Canada	1990 - Industry Canada. Does not include self employed. Industry Dynamics 1983 - 98 based on tax records.	1996 as for 1990	1998 as for 1990
Chile	1994 - IADB Profile figures. www.iadb.org/sds/doc/810eng.rtf Note that this is based on 87% non agricultural, which was valid for 1997. Other years not available.	1996	1997
China	1992 refers to industrial SMEs	1995 Chen (2000) p 19, table 1.2 refers to industrial SMEs	1998 Chen (2000) p20 table 1.3
Hong Kong, China	1993	1996	2000 SMEs in HK www.sme.gcn.gov.hk
Indonesia	1992 non agric % from APEC (1994) Survey	1996 Industrial census (subtract establishments >100)	No figures for Indonesia - this is a guess.
Japan	1993	1996 JSBRI 2000 White paper. Figures are for non agricultural SMEs. Definition of SME was changed in 1999, the 1996 amount uses old definition.	1999 METI White Paper on SMEs 2001
Korea	1992	1996 SMBA http://www1.smba.go.kr/human/english/e_index.htm Survey Report on Basic Workplace Statistics published by the National Statistical Office.	1997 Hong (1999) Korea Small Business Institute
Malaysia	na	na	SMIDEC - based on register of Companies and Businesses.
Mexico	INEGI economic census 1989, 1994, 1999		
New Zealand	1992 assumes SME is <100 employees	1996 Obtained from Statistics New Zealand. May not be comparable with 1999 figure.	1999 Ministry of Commerce, SMEs in New Zealand Jan 2000
Peru	National Economic Census		
Philippines	1988 refers only to manufacturing	1995 BSMBD manufacturing only. Services added another 148,542 establishments	2000 National Statistics Office, establishments in Philippines, covers services and manufacturing
Russian Federation		1995 Russian SME Resource Centre	1998 Russian SME Resource Centre

Notes to Table 2.1.1 and Table 2.1.2 continued

Singapore	1990 Economic Survey Series for commercial services, plus 1990 Industrial Census for manufacturing	1996 Economic Survey Series table 4 for commercial services, plus 1994 Industrial Census for manufacturing	1998 Establishments. Economic Survey Series for services, 1998 Industrial Census for manufacturing (does not include establishments with <10 employees)
Chinese Taipei	1990	1996	1999 White Paper on SMEs 2000 table A1 p 266 Enterprises
Thailand	Manufacturing only uses SMI definition		1998 - Bangkok Bank as quoted by Sevilla (2000) SME Policy in Thailand
USA	SBA state of small business 1994	SBA http://www.sba.gov/advo/stats/#Firm	SBA Small Business Profile 1999 http://www.sba.gov/advo/stats/#Firm
Viet Nam	estimate only		Nguyen Quang Dung, and Tran Quoc Trung (2001), SME Sector and Supply Chain Management Perspective in Viet Nam, paper to APEC Supply Chain Management Conference, Thailand 2001. Estimate of private sector SMEs. Does not include self employed.

Data for 1990 is from APEC (1994) Survey on SMEs unless otherwise stated

2.2 The demographic distribution of people and SMEs in APEC

Key Points:

- ***Economies in APEC targeting 2020 have 80% of the people, 67% of APEC's SMEs and 61% of the people employed by SMEs. There is a structural imbalance in favour of 2010 economies, which have only 19% of the people, but 33% of the SMEs and 39% of the people employed by SMEs.***

- ***China has 49% of APEC's people, but only 16.6% of APEC's SMEs.***

- ***Economies east of the international dateline (Americas = Canada, Chile, Mexico, Peru, USA) have about 17.5% of the human population and about 21% of the SME population, while the "Asian" economies west of the international dateline have about 82% of the human population, and 78% of SMEs.***

Table 2.2.1 Relative share of APEC population, SMEs and SME employment

	Population % 1997	% SMEs 1999 - 2000 best guess where accurate figures not available	% employed by SMEs of total 1999 or 2000 best guess where accurate figures not available
Australia	0.75	2.31	1.49
Brunei Darussalam	0.01	0.01	0.00
Canada	1.22	1.92	2.37
Chile	0.59	1.04	
China	49.73	16.59	39.92
Hong Kong, China	0.26	0.61	0.45
Indonesia	8.12	33.18	9.98
Japan	5.11	12.73	14.37
Korea	1.86	5.60	2.95
Malaysia	0.88	0.04	
Mexico	3.82	5.92	2.59
New Zealand	0.15	0.40	0.25
PNG	0.18		
Peru	0.99	0.95	0.06
Philippines	2.98	1.70	1.37
Russian Federation	5.97	1.76	2.82
Singapore	0.13	0.11	0.14
Chinese Taipei	0.88	2.18	2.19
Thailand	2.46	0.73	0.53
USA	10.85	11.82	17.69
Viet Nam	3.06	0.41	0.83
Total	**100.00**	**100.00**	**100.00**
share of 2010	**19.94**	**33.11**	**38.95**
share of 2020	**80.06**	**66.89**	**61.05**
share of Americas	**17.47**	**21.65**	**22.71**
share of Asia	**82.53**	**78.35**	**77.29**

Sources: population figures - World Bank http://www.worldbank.org/data/
SME figures based on table 2.1.1 These are best guess for some economies for 1999 - 2000.
SME employment - based on 1999 or 2000 figures. These indicate a total APEC SME employment of around 300 million in APEC in 2000, see section 3.1 for details.
Notes: Where data are not available, the table shows a blank or zero. The actual SME employment figures are shown in Table 3.1.2 below.
2010 - economies seeking to meet 2010 targets (*identified in italics*)
2020 - economies seeking to meet 2020 targets
Americas - all economies in APEC east of the dateline
Asia - all economies in APEC west of the dateline
The definition of an SME is that used by the economy concerned

Because it is necessary to amalgamate data from different time periods and sources this table gives only a broad brush picture of the relative share of the distribution of the population of people and SMEs in APEC.

SMEs are not evenly distributed between economies, or between broad groupings in APEC. This reflects a structural imbalance. The 2020 economies have less SMEs than might be expected given their population; although the 2020 economies had about 80% of the population in APEC in 1997, they had only 67% of the SME population. A large part of this reflects the amount of “catch up” required of China, the Russian Federation and Viet Nam, which only really started to develop an active SME sector in the 1980s or later, and which are therefore under represented. China for example has about half of the human population of APEC, but only 17% of its SMEs. The Russian Federation has about 6% of APEC's human population, but only about 2% of its SMEs. Viet Nam has 3% of the human population, but only 0.4% of the SMEs.

Another aspect of this structural imbalance is the relative size of SMEs in 2010 and 2020 economies. 2010 economies have 19% of the SMEs, but 38.9% of the people employed by SMEs. SMEs in 2020 economies are more likely to be dominated by micro enterprises (ie those employing less than 5 people). The 2020 SMEs are often smaller and less able to compete internationally than those in the 2010 economies.

Interestingly enough, the structural imbalance is not as apparent on an east-west divide. The APEC economies east of the international dateline (Americas = Canada, Chile, Mexico, Peru, USA) have about 17.5% of the human population and about 21.6% of the SME population, while the “Asian” economies west of the international dateline have about 82.5% of the human population, and 78.3% of SMEs.

2.3 The number of people per SME

Key Points:

- ***On average, about one person in every 71 in APEC is an "entrepreneur-manager".***

- ***There are about 20 people for every SME in most of the "developed" economies (those targeting APEC liberalisation in 2010), but in the 2020 economies there are about 115 people per SME. This suggests that there is a significant shortage of entrepreneur managers in 2020 economies, and that this shortage may impede competitiveness and adjustment to change.***

- ***Part of the shortage is attributable to a higher proportion of young people in 2020 economies, but this points to a much greater need for training in entrepreneurship and business in those economies if 2020 targets are to be achieved.***

Table 2.3.1 Population divided by number of non agricultural SMEs

	Persons/SMEs 1990	persons/SMEs 1997
Australia	22.3	16.7
Brunei Darussalam	66.6	61.6
Canada	32.5	32.4
Chile	31.1	29.2
China	131.9	153.4
Hong Kong, China	20.7	22.3
Indonesia	14.8	12.5
Japan	19.1	20.5
Korea	20.5	17.0
Mexico	64.9	33.6
New Zealand	21.1	19.6
Peru	53.0	53.0
Philippines	781.2	89.9
Russian Federation	0.0	173.3
Singapore	86.0	57.5
Chinese Taipei	25.3	20.6
Thailand	873.4	173.1
United States	50.3	47.0
USA2 (includes non incorporated sole proprietors)	18.0	16.8
Viet Nam		377.3
unweighted average	**129.6**	**71.3**
unweighted average 2010	**35.4**	**30.6**
unweighted average 2020	**250.8**	**114.4**
unweighted average 2010 (include USA2 and exclude Singapore)	**22.7**	**21.3**

Note: Where data are not available, the table shows a blank or zero.
See notes to table 2.1.1 for sources and actual dates.
Unweighted average = average of the non zero statistics for all APEC economies. Unweighted averages are the averages of the actual percentages in the relevant column, not weighted by the size of the economy (which thus gives relatively less weight to large economies like China and USA and relatively more weight to small economies like Hong Kong China and Chinese Taipei).
2010 - economies seeking to meet 2010 targets (*identified in italics*)
2020 - economies seeking to meet 2020 targets
The definition of an SME is that used by the economy concerned

The number of people per SME (that is the human population divided by the total number of SMEs) gives an approximate statistic of the extent of entrepreneurship in an economy, or the "entrepreneur density". On an average there were about 71.3 people per SME in APEC in 1997. In rough terms this suggests that one person in every 71 in APEC was an "entrepreneur-manager" responsible for an SME at the end of the decade to 2000. Comparison with the figure of 129.6 in 1990 is difficult because of inaccurate and missing data in 1990, but it does seem that there may have been an increase in the "entrepreneur density" in APEC over the decade.

However there are about 20 people for every SME in most of the "developed" economies, that is those targeting APEC liberalisation in 2010. This is true for Europe and for APEC. Table 2.3.3 gives European data, table 2.3.1 gives the APEC data. The apparent exceptions to this 5% entrepreneur density rule are the USA and Singapore, but these are readily explained. For the USA, the figure in the table is 47, but the more realistic figure is about 15 people per SME, or an entrepreneur for every 15 people. (The discrepancy arises because USA SBA statistics on SME population do not include about 8 to 10 million self employed unincorporated sole proprietors). The higher figure for Singapore is largely due to historical and structural reasons. The average figure for APEC 2010 economies, excluding Singapore but using a USA2 figure which includes unincorporated non employing firms, is 21.3. This is considered the most representative. It suggests that for a developed economy, we should expect an entrepreneur density of about 5%, or one person in very 20 of the population being an entrepreneur manager of an SME.

Table 2.3.2 Population above age of 15 divided by number of SMEs adult population

	Persons/SMEs 1990	persons/SMEs 1997
Australia	17.4	13.0
Brunei Darussalam	44.1	40.8
Canada	25.7	25.7
Chile	21.6	20.4
China	97.2	113.1
Hong Kong, China	16.3	17.5
Indonesia	9.5	8.1
Japan	15.5	16.7
Korea	15.2	12.6
Mexico	40.5	20.6
New Zealand	16.3	15.1
Peru	32.9	32.8
Philippines	470.2	54.1
Russian Federation	0.0	0.0
Singapore	65.7	43.9
Chinese Taipei		
Thailand	587.8	116.5
United States	39.3	36.8
USA2 - includes non employing sole proprietors	14.1	13.2
unweighted average	**85.0**	**31.6**
unweighted average 2010	**27.2**	**23.6**
unweighted average 2020	**162.2**	**44.3**
unweighted average 2010 (include USA2 and exclude Singapore)	**15.0**	**14.6**

Note: Where data are not available, the table shows a blank or zero.
See notes to table 2.1.1 for sources and actual dates.
Unweighted average = average of the non zero statistics for all APEC economies. Unweighted averages are the averages of the actual percentages in the relevant column, not weighted by the size of the economy (which thus gives relatively less weight to large economies like China and USA and relatively more weight to small economies like Hong Kong China and Chinese Taipei).

2010 - economies seeking to meet 2010 targets (*identified in italics*)
2020 - economies seeking to meet 2020 targets
The definition of an SME is that used by the economy concerned

In the less developed economies targeting 2020 the figure is usually much greater and is closer to 100 people per SME. For example, China has about 50% the people of the region, but officially has only about 17% of the SMEs, and thus has about 153 people per SME in 1997 on official figures. Even allowing for official figures understating the number of SMEs in China by about 7 to 8 million, the ratio would still be about 75 people per SME. The problem is also exacerbated by lack of *private* sector experience in economies such as China, Viet Nam and the Russian Federation. The surprisingly low ratio for Indonesia (12.5) is most likely to be due to the way the statistics for SMEs are gathered; the actual situation is that most of these SMEs are small part time, self employed people or even non existent.

Some economies have a much higher proportion of young people, so it is to be expected that the proportion of entrepreneur-managers will be less as a proportion of the total population. To adjust for this effect, table 2.3.2 gives the statistics based on the population of "adults" or people above 15 years of age. This shows that there are about 15 adult people per SME (or one entrepreneur-manager for every 15 adults) in developed economies in APEC, and about 44 adults per SME in developing APEC economies. The ratio between the two figures is less for the adult population (44.3/14.6 = 3.03) than the ratio for the population as a whole (that is, 1114.4/21.3 = 5.4). This suggests that part of the problem facing the developing economies is the high proportion of young people who are not yet of working age, and who thus have not had an opportunity to become entrepreneurs yet. However, unless these young people are given training and educational opportunities in the next few years they will be less likely to become entrepreneur-managers, and that in turn will impede the competitiveness and growth potential of these economies. In a globally competitive APEC economy of 2010 and 2020, competitiveness and entrepreneurship will become much more important. The problem is a large one for APEC, as indicated in section 2.5, because it suggests that some form of training for 50 to 70 million people may be required.

Table 2.3.3 Entrepreneur ratios for European economies (number of people in the general population per SME)

	1990	1998
Austria	42.8	28.3
Belgium	20.3	19.3
Denmark	30.2	35.3
Finland	45.3	24.5
France	28.6	25.1
Germany	34.7	23.3
Greece	14.8	17.0
Ireland	26.9	43.7
Italy	14.5	14.6
Luxembourg	25.4	28.4
Netherlands	35.6	34.9
Norway	32.6	21.6
Portugal	16.4	14.4
Spain	16.0	15.7
Sweden	57.1	23.0
UK	21.8	16.2
Ratio - all Europe	**22.6**	**19.4**
unweighted average	29.0	24.1
standard deviation	12.2	8.4

Source: ENSR, The European Observatory for SMEs, Reports, various dates. Hall (2002)
Notes: See table 2.3.1 for explanation of "ratio" and "unweighted average".
The definition of what constitutes an SME has changed for some economies over the period as a result of efforts by Eurostat to standardise definitions. This has led to some changes in the ratios, and these are not directly comparable over time for all economies.

2.4 The number of people employed by each SME

Key points:

- ***The average number of people employed by each SME in APEC is about 7 employees. The "average" SME in APEC is quite small, but there is no intrinsic reason why a firm of this size cannot be internationally competitive.***

- ***SMEs in 2010 economies are slightly larger on average than those in 2020 economies.***

- ***It seems that the average number of employees per APEC SME has fallen slightly over the decade, from 7.15 to 6.31, while the average size of 2010 SMEs has grown slightly.***

Table 2.4.1 Average number of employees per SMEs in APEC

	1990	1996	latest year
Australia	4.44	4.68	4.02
Canada	7.43	7.29	7.88
Chile	0.00	10.57	0.00
China	12.87	17.05	0.00
Hong Kong, China	5.20	0.00	4.68
Indonesia	2.49	1.76	0.00
Japan	6.69	6.92	7.04
Korea	4.25	3.17	3.32
Mexico	2.82	2.58	2.86
New Zealand	3.40	2.51	3.93
Peru	0.40	0.38	0.39
Philippines	7.00	6.33	5.02
Russian Federation	0.00	0.00	9.95
Singapore	7.04	6.26	7.59
Chinese Taipei	7.02	6.27	6.28
Thailand	20.26	0.00	5.15
USA	9.99	12.27	9.49
Viet Nam	0.00	0.00	12.50
total ratio	**7.15**	**6.48**	**6.31**
unweighted average	**6.33**	**6.29**	**6.01**
2010 unweighted average	**5.69**	**7.10**	**6.36**
2020 unweighted average	**7.16**	**5.21**	**5.60**

Notes: Where data are not available, the table shows a blank or zero.
Based on total number of non agricultural employees divided by estimate of total number of non agricultural SMEs.
Total ratio = total sum of non agricultural employment by SMEs in APEC divided by the total number of SMEs in APEC
unweighted average = average of the non zero statistics for all APEC economies.
2010 - economies seeking to meet 2010 targets (*identified in italics*)
2020 - economies seeking to meet 2020 targets
The definition of an SME is that used by the economy concerned unless noted
For actual dates and sources see notes to table 2.1.1

The "average" APEC SME is best thought of as a small enterprise of less than about 6 to 8 employees, plus an "entrepreneur-manager". The modal SME is smaller again, but there are insufficient data to estimate it accurately.

Changes that have taken place in business and regulatory environment (such as technology, communications, transport, trade barriers) in the last two decades mean that a small enterprise can be a successful internationally competitive firm, even if it comprises less than 10 people (OECD (1997)). The "average" SME in APEC is sufficiently large to be able to compete internationally if it is permitted to do so. As shown in section 5, SMEs are under represented in international trade and FDI

in APEC. This is more likely to be because of impediments, rather than any intrinsic limitations due to their size.

The slightly larger size of SMEs in 2020 economies at the beginning of the decade is probably due to the greater importance of manufacturing SMEs, which tend to intrinsically be larger. For many 2020 economies the main statistics gathered on SMEs focus on manufacturing. In 2010 economies, a higher proportion of SMEs is likely to be active in the provision of services, and these tend to be smaller. As noted in section 3.4 there are some structural shifts taking place which suggest that small firms (employing between 5 and 20 employees) are growing at the expense of micro enterprises, medium and large firms.

2.5 Benchmark SME demography - how many entrepreneurs should there be?

Key Points:

- ***If all economies in APEC were to have about one SME for every 20 people in the general population (in line with the average in 2010 economies), then there would have to be about 72 million new SMEs created, and a corresponding number of additional entrepreneur-managers.***

- ***This is a huge HRD challenge that APEC must face in the next twenty years if SMEs are to make a serious contribution to the international competitiveness of 2020 economies.***

- ***Most of the additional SMEs need to be created in Asia, and especially in China.***

Table 2.5.1 Additional SMEs needed to reach "one in 20" levels of entrepreneur-managers in 2020 economies

	actual SMEs	target SMEs	extra SMEs needed	% increase
Brunei Darussalam	5000	15403	10403	208
China	8000000	61359000	53359000	667
Mexico	2854266	4714015	1859749	65
Papua New Guinea	100000	225076	125076	125
Peru	460000	1218550	758550	165
Philippines	817976	3676350	2858374	349
Russian Federation	850000	7365200	6515200	766
Thailand	350000	3030100	2680100	766
Viet Nam	200000	3773000	3573000	1787
Total	**13,637,242**	**85,376,693**	**71,739,451**	**526**

Note: caution should be taken in interpreting these figures - see text for explanations.
Actual SMEs - best guess of number of SMEs at 2000. These are based on official figures where these are available (see section 2, table 2.1)
Target SMEs = total human population/20
Extra SMEs needed = target - actual
% increase = extra SMEs/actual
Table only applies to economies targeting 2020 APEC

Section 2.3 above shows that there are about 20 people for every SME in the more developed economies in APEC. Put another way, there is one "entrepreneur-manager" for every 20 people in the more developed economies. However in the 2020 economies there are about 115 people per SME, or only one "entrepreneur-manager" per 115 people. This means that the 2020 economies seem to be lacking when it comes to the "entrepreneurial engine". This in turn means that the 2020 economies are likely to be less flexible, less competitive and have less internally generated supply side growth.

To bring the "developing 2020" economies into line with the benchmark set by the "developed", or 2010 economies, in terms of the level of "entrepreneur-managers" active in the economy, more SMEs need to be created, and more entrepreneurs trained and encouraged. It is instructive to see just how many additional SMEs would need to be created. Table 2.5.1 provides a rough estimate of this. To do this we need to know the human population and the SME population. For some economies there are no reliable official data available on the number of SMEs, so an approximation has been used based on limited available sources. A benchmark of 1:20 has been used here; in section 2.3 it was noted that a benchmark of 1:15 for the population over the age of 15 was possibly more accurate because many of the 2020 economies have relatively young populations. The reason for using the 1:20 ratio in table 2.5.1 is that by the time the 2020 target date for free trade in APEC has been reached, much of that young population in the 2020 economies will have grown up, and the 1:20 ratio is a more appropriate target. The argument here is that APEC needs to actively address this major challenge over the next 20 years. How big is the challenge?

Of the economies targeting 2020, only Indonesia, Korea and Malaysia already have sufficient SMEs to provide one SME entrepreneur manager for every 20 people. Some doubt must be placed on the Indonesian statistic, because it reflects a very large number (about 16 million) of micro enterprises; there are relatively few SMEs in Indonesia employing more than 5 people, and so very few people have management experience and skills. The same is possibly true in Malaysia, though the issue is less pronounced there.

This suggests that if the other "developing" APEC economies are to reach similar levels of entrepreneur-managers to the developed APEC economies, there needs to be a significant percentage increase in the number of SMEs in 2020 economies; about 500% increase on average. It would mean training about 72 million people to give them appropriate management skills. This is a huge HRD challenge and it needs to be met in the next 20 years if SMEs are to help 2020 economies be an internationally competitive force in APEC. The "Entrepreneurial Engine" is underpowered in much of APEC, especially in Asia, (China, Philippines, Thailand and Viet Nam [and almost certainly Indonesia, though the raw figures suggest otherwise]). In these economies there are simply fewer SMEs than might be expected. This means that there are fewer start ups, and the pool of SMEs from which high growth SMEs can emerge is much smaller. Consequently there is less growth than there would otherwise be. Most of these "missing SMEs" or "missing entrepreneurs" are in China, which needs about 50 million additional SMEs to bring it to benchmark levels. The problem in China is further exacerbated because many of the SMEs are state owned (SOEs) and only about one fifth of the managers are true "entrepreneur managers" with experience in independent business decision making. Even in economies like Viet Nam and Philippines, there need to be about 3 million or more additional entrepreneur-managers.

In the past this challenge would be seen as a government responsibility, but the task is just too enormous to even contemplate for most governments. Changing technology (notably the world wide web, and especially WAP 3G or wireless access to the internet) is changing this, and making it more feasible for the private sector to train large numbers of managers in a relatively short period of time, but it will still need public-private cooperation to achieve the sort of growth that is needed.

3. The Contribution of SMEs to the APEC Economy

3.1 The contribution of SMEs to total employment

Key Points:

- ***Non agricultural SMEs contribute, on average about 25% to 30% of all employment, both public and private sector, in APEC, and employ about 300 million people.***
- ***The contribution ranges from very high levels (around 70% in Chinese Taipei and Japan), to very low levels (around or below 20% in China and Singapore).***
- ***For 2010 economies the contribution is over 40% of all employment, but it is less for 2020 economies.***
- ***There is no clear pattern to the trend in the contribution of non agricultural SMEs to total employment. For economies where there are sufficient data, the percentage has increased in Australia, Mexico, New Zealand, Singapore, and Chinese Taipei, but decreased in Hong Kong China, Indonesia, Japan, and Korea.***

Table 3.1.1 Employment by non agricultural SMEs as a percentage of total employment in each member economy

	1990	1996	latest (1998 to 2000)	APEC (1998) Profile figures #
Australia	42.8	50.3	52.2	50%
Brunei Darussalam				92%
Canada	48.3	46.9	49.7	94%
Chile				36.5%
China	17.3	18.0	17.2	78%
Hong Kong, China	53.3	45.8	43.4	61%
Indonesia	39.6	33.7	34.2	88%
Japan	69.4	68.6	66.3	78%
Korea	49.3	39.7	44.3	73%
Malaysia				12%
Mexico	12.0	16.0	20.2	77.7%
New Zealand	36.6	32.4	43.7	52%
PNG				53%
Peru	2.8	2.8	2.6	na
Philippines	2.4	2.3	14.5	66%
Russian Federation			14.6	33.5%
Singapore	14.4	16.8	21.9	52%
Chinese Taipei	65.8	68.6	70.8	78%
Thailand	4.2	0.0	5.0	18%
USA	41.8	41.1	40.4	69%
Viet Nam				85%
Average all APEC	**25.9**	**23.3**	**24.7**	
Unweighted average	**31.3**	**30.2**	**33.8**	
2010 unweighted av.	**46.6**	**46.3**	**48.6**	
2020 unweighted av.	**15.9**	**14.1**	**19.1**	

Notes: Where data on employment is not available, the table shows a blank or zero. The actual non agricultural SME employment figures are shown in table 3.1.2 below.
See table of notes below for sources and actual dates.
Percentages are based on SME non agricultural employment/total employment:

- SME non agricultural employment is from table 3.1.2 below. See notes attached to that table for sources.
- Total employment is from ILO database statistics http://laborsta.ilo.org and includes public and private including agriculture.

Average all APEC is the sum of SME non agricultural employment for those APEC economies for which data are available, divided by the sum of all total employment figures for those economies.
Unweighted average = average of the non zero statistics for all APEC economies. Unweighted averages are the averages of the actual percentages in the relevant column, not weighted by the size of the economy (which thus gives relatively less weight to large economies like China and USA and relatively more weight to small economies like Hong Kong China and Chinese Taipei).
2010 - economies seeking to meet 2010 targets (*identified in italics*)
2020 - economies seeking to meet 2020 targets
The definition of an SME is that used by the economy concerned unless otherwise specified
The figures in the columns 2 to 4 are not comparable to the percentage figures supplied by APEC (1998) Profile of SMEs in APEC Economies, p 3, provided in the last column (column 5). See text for explanation.
Estimates for contributions of SMEs to *private* sector jobs are below in table 3.2.3

Table 3.1.2 Employment by non agricultural SMEs in APEC

	1990	1996	latest (1998 or 1999)
Australia	3357800	4187600	4468300
Canada	6360300	6412699	7126100
Chile		4704900	
China	110788323	123661900	120000000
Hong Kong, China	1446229	1417611	1367000
Indonesia	30000000	28900000	30000000
Japan	43399294	44492567	43194781
Korea	8910800	8260062	8866081
Mexico	3676589	5632930	7786525
New Zealand	541843	547180	754334
Peru	164667	174099	177100
Philippines	544720	631863	4104413
Russian Federation	15414100	0	8468700
Singapore	221568	294435	409028
Chinese Taipei	5555000	6223000	6576000
Thailand	1281275	0	1605815
USA	49689430	52092183	53174500
Viet Nam			2500000
Total	**281,351,938**	**287,633,029**	**300,578,677**

Notes and sources: see table of notes below.

This section seeks to show how much SMEs contribute to **total** employment in APEC, as distinct from private sector employment. The total employment figures are based on ILO statistics, so that they are reasonably comparable across time and across economies. According to the ILO there were about 1.05 billion people employed in APEC in 1990, rising to about 1.26 billion around 2000. On available evidence it appears that there were about 281 million people in total employed in APEC by SMEs in 1990, out of a total of about 1.05 billion total employed. A best guess for the corresponding figure for 1999/2000 is about 300 million of about 1.26 billion total employed. These give an average contribution of SMEs to total employment in APEC of about 30% on an unweighted basis, and about 25% on a weighted basis. Put another way, about one person in three or four is employed by a non agricultural SME, while the rest have employment with the state or with large firms, or in agricultural SMEs (though this latter contribution is quite small in most economies), or they are self employed SME managers and thus not usually counted in the statistics for "employed". The 2010 economies have a higher proportion; about 40% or more of people employed in the 2010 economies are employed in SMEs. Agricultural SMEs are excluded from table 3.1.1 and 3.1.2 because it is difficult to get accurate estimates of the numbers, especially in some less developed economies. In section 3.5 an effort is made to identify the proportion of SME employment or GDP in major industry sectors: primary (which includes agriculture, fishing and mining); secondary; and tertiary. Primary industry employment in SMEs probably makes up about between 4% and 7% of all SME employment in APEC, and this proportion is declining.

Total employment here includes all sources of employment. That is, it includes both private and public employment. The State is a major employer in some APEC economies, and this diminishes the

relative role of SMEs. The contribution of SMEs to **private sector** jobs is examined in the next section; SMEs make a much bigger contribution to private sector employment, and in particular to private sector **jobs**. The term "SME employment" sometimes refers to *only* those people employed by an SME, and does not include the owner, so it underestimates the contribution of SMEs to jobs in the economy.

Some figures for SME employment in table 3.1.1 probably understate the real contribution. This is partly attributable to different statistical coverage of SMEs, or to structural reasons. For example, in Singapore the contribution of SMEs is quite low, at about 21.9% of total employment. Structurally, Singapore has tended to encourage the establishment of larger firms and subsidiaries of MNCs. Statistically Singapore does not count manufacturing SMEs with less than 10 employees, so this gives a downward bias to the role of SMEs. Statistical coverage of SMEs in many of the 2020 economies is limited to industrial or manufacturing SMEs, simply because they are easier to measure or more important for national planning purposes. This affects the figures for Mexico, Philippines, and Thailand.

The figures in table 3.1.1 also differ from the figures provided in the APEC 1998 Profile figures, (APEC (1998) p 3), which are provided in the last column of table 3.1.1 for comparison. It is not clear where the APEC 1998 Profile figures were sourced from or what they are based on. However, some of the difference is possibly because:
a) the percentages in the last column refer to the contribution of SME employment to total *private* sector employment, instead of the ILO figure for total employed; and
b) the figures in the first three columns refer to non-agricultural employment, while the 1998 Profile figures may be based on agricultural employment as well.

NOTES to tables 3.1.1 and 3.1.2.
(the first date indicates the date for the data in those tables)

	1990	1996	latest (1998 or 1999)
Australia	1991 table 2.5 1321.0 1995 Small Bus in Aust. An SME is defined here as less than 100 employees and includes non employing. Most Australian figures are usually for small business - ie less than 20.	1995/6 table 2.5 1321.0 1999	1999/00 ABS 1321.0 1999 - 2000 Small business in Aust Update
Brunei Darussalam			
Canada	1991 private sector only	1996 Industry Canada - Employment Dynamics. Does not include self employed. Based on Average Labour Units (which is based on total payroll of firm divided by average salary in that industry).	1998 - as for 1996. Note that contribution of Private sector SMEs to total employment is slightly higher if based on ALU estimates - around 54% in 1996 and 55% in 1998.
Chile		IADB Profile table 2	
China	1991 based on 87% or employees in SMEs as quoted in APEC Survey (1994)	Chen (2000) page 19 table 1.1	estimate only
Hong Kong, China	1993 based on 63% of total employ		1999
Indonesia	1990 APEC survey gives 70 m which seems to include agricultural employment in SMEs, non agricultural would be about 30 million, so this is a guess.	1996 Rice US Aid. These figures are not comparable with 1990 figures, but probably are more accurate.	estimate only
Japan			1999 White Paper on SMEs 2001

NOTES to tables 3.1.1 and 3.1.2 continued

Korea	1992	1997	1999 SMBA website http://www1.smba.go.kr/
Mexico	1989	1994	1999 INEGI - supplied by Mexico. Covers SME employment, but does not include micro enterprises or non employing.
New Zealand	1992 p 199 - assumes SME is less than 50 people		SMEs in NZ (2000)
PNG			
Peru			
Philippines	1988 manufacturing only	1995 manufacturing only. Services added about 830,207 employed in SMEs.	2000 National Statistical Office. Data is not comparable with previous years on this table, but are probably more accurate.
Russian Federation	1995		1998
Singapore	1990 -based on 44% of total employment	1996	1999 based on Singapore Economic Survey Series 1998 and Census of industrial Production 1999
Chinese Taipei	1991	1996	1999 2000 White paper p 268
Thailand	1991 manufacturing only excludes rice milling		1998 Sevilla (2000) p15, sourced from Dept of Industrial Works (DIW) data. This underestimates the number of SMEs in Thailand.
USA	1990	1995	1998 SBA Small Business Profile 1999
Viet Nam			2001 Nguyen & Tran (2001) estimates only

3.2 The contribution of SMEs to private sector jobs

Key points:

- ***SMEs contribute about 60% of all private sector jobs in APEC.***

- ***On average there seems to have been an increase in the contribution of SMEs to private sector jobs in the last decade.***

- ***The contribution of SMEs to private sector jobs is in excess of 50% for all economies for which data are available except the USA and Singapore. The contribution of SMEs to private sector jobs tends to be higher in 2020 economies and in the Asian economies.***

Table 3.2.1 Percentage contribution of SMEs to private sector non agricultural jobs based on standardised SME definition of <100 employees

	1990	latest (1998, 1999, or 2000)
Australia	65.2	66.0
Canada	59.2	49.5
China	100.0	100.0
Hong Kong, China	63.0	59.6
Japan	79.2	80.6
Korea	78.4	81.9
Mexico	56.3	65.2
New Zealand	57.4	60.0
Peru	87.2	87.9
Philippines	50.0	69.5
Singapore	36.3	43.1
Chinese Taipei	82.3	81.0
USA	44.2	41.5
total ratio	**59.3**	**62.4**
unweighted average	**66.1**	**68.1**
2010 unweighted average	**60.8**	**60.1**
2020 unweighted average	**74.4**	**80.9**

Notes and sources: - see table below.
Total ratio = total private sector SME jobs (includes non employing jobs) divided by total private sector jobs, which gives the ratio for all APEC for those economies for which there are reliable data.
Unweighted average = average of the non zero statistics for all APEC economies. Unweighted averages are the averages of the actual percentages in the relevant column, not weighted by the size of the economy (which thus gives relatively less weight to large economies like China and USA and relatively more weight to small economies like Hong Kong China and Chinese Taipei).
2010 - economies seeking to meet 2010 targets (*identified in italics*)
2020 - economies seeking to meet 2020 targets
The definition of an SME is less than 100 unless otherwise stated, in which case it is that used by the economy concerned. See table of notes below for details.
Note that figures for China are an approximation. See text for explanation.

Table 3.2.1 gives the contribution to *jobs* in the *private sector* by SMEs, where an *SME is defined in standard comparable terms, as far as is possible, as having up to 100 employees*. This shows that SMEs contribute about 60% of all jobs in the private sector. For the economies for which data are available, table 3.2.2 shows that this gives a estimate of about 153 million jobs in SMEs in 1999, out of about 244 million employed in the private sector in APEC, or 62%.

This contribution varies from a low of around 40% in the USA to a high of 80% in Japan, Korea and Chinese Taipei. The higher values in Peru (88%) and China (100%) are a little misleading because they are more likely to reflect a relatively small private sector in the case of China, or a structural imbalance in industry in the case of Peru. For all the economies except USA and Singapore, SMEs contribute more than half the private sector jobs in the economy. The contribution tends to be higher in the 2020 economies (an unweighted average of 80%), and in the "Asian" economies (those west of the dateline) at 71%.

There are three issues which need to be taken account of when trying to assess the contribution of SMEs to jobs:

- First, is the role of the State. In economies where the government is large proportion of the economy, the private sector has a smaller role in the overall economy, and thus so also do SMEs in the total economy. SMEs can still play a very important role in the private or non-government sector.
- Second, many SMEs do not actually employ anyone, but they *do* create a job for the manager entrepreneur. The role of these non-employing SMEs (usually micro enterprises) is sometimes overlooked. SMEs make a much larger contribution to *private* sector *jobs* than they do to total employment.
- Third, the definitions used by different economies differ, so it is difficult to compare the figures between APEC economies. As noted in section 1.1, most APEC economies collect SME data in a way which does permit comparison. In table 3.2.1 an attempt is made to compare the contribution of firms which employ (including those which contribute non employing jobs) less than 100 people.

To understand the importance and interpretation of these figures it is useful to look at three examples:

1. In Australia, the contribution of SMEs to employment is usually quoted as being about 50%. However this refers strictly to *small* business, not SMEs. A small business employs less than 20 people. The contribution to jobs by enterprises employing between 0 and 100 employees is closer to 70%.

2. Similarly in the USA, non employing unincorporated enterprises are not usually included in the total employed, even though these owner managers have a job. The total employed by SMEs (defined as up to 500 employees) in USA is around 53 million, but there are another 8 to 10 million of these owner managers, which brings the total SME *jobs* to around 61 to 63 million.

3. In China, the private sector has grown very rapidly over the last two decades, and much of this growth has been in SMEs. Under China's statistical collection methods it is not possible to get the breakdown by size and by ownership (that is, private sector versus state owned). The following table gives the growth of private sector enterprises, irrespective of size. However most of these enterprises would be relatively small. The average number of employees of these private sector enterprises was about 17 in 1992 and this had fallen to 14 in 1997. This is in comparison with the APEC average of about 6 or 7 employees per SME (see section 2.4) and the whole of China average number of employees per SME (table 2.4.1) of 12.8 in 1990 and 17 in 1995. It is thus *assumed* in table 3.2.1 that all of the private sector employment in China is in SMEs. From a low base of only 139,000 (about the same as New Zealand) in 1992, the number of private sector enterprises in China has grown at a compound annual rate of about 40% to 961,000 in 1997, and the number employed by the private sector has grown from about 2 million in 1992 to about 13 million people in 1997. Although the statistics are not directly comparable, in 1995 there were about 7 million SMEs (both state owned and private), employing about 119 million of a total of 143 million employed by all industrial enterprises (The 3rd National Industry Survey, 1995, People's Republic of China, Page 4). Thus, by 1995, the private sector in China made up about 10% of enterprises and provided about 10% of the employment. Most of this employment and enterprise growth has been in SMEs.

Table 3.2.a Development of Private Enterprises in China 1992 - 1997

	no. of units	Increased by % compared with last year	No employed in 10,000	Increased by % compared with last year
1992	139,633	29.50%	232	26.10%
1993	237,919	70.40%	373	60.80%
1994	432,240	81.70%	648	73.70%
1995	654,531	51.40%	956	47.50%
1996	819,252	25.20%	1,171	22.50%
1997	960,726	17.30%	1,349	15.20%

Source: Chen (2000) p104 table 2.1, (sourced in turn from Report of Development of China's Private Owned Enterprise, Social Science Publisher, 1999 Jan)

Table 3.2.2 Total Private Sector Non Agricultural Jobs (PSNAJ) and SME contribution (including non employing) in jobs and percent

	PSNAJ 1990	SME - PSNAJ 1990	%	PSNAE LATEST	SME - PSNAE LATEST	% SME
Australia	5153900	3357800	65	6659500	4398500	66
Canada	10736700	6360300	59	14455100	7126100	49
China	2320000	2320000	100	13490000	13490000	100
Hong Kong, China	2295601	1446229	63	2293097	1367402	60
Japan	54791827	43399294	79	53590313	43194781	81
Korea	11358000	8910000	78	10829961	8866001	82
Mexico	6528643	3676589	56	11937791	7786525	65
New Zealand	1162008	666911	57	1257224	754334.4	60
Peru	638444	556494	87	697033	612443	88
Philippines	1090109	544720	50	5902186	4104413	70
Russian Federation					7401400	
Singapore	610956	221568	36	764676	329381	43
Chinese Taipei	4700000	3869000	82	5664000	4587000	81
USA	101157559	44709223	44	117079731	48615019	42
total	**202,543,747**	**120,038,128**		**244,620,612**	**152,633,299**	
total ratio %			**59**			**62**
unweighted average			**66**			**68**
2010 unweighted av.			**61**			**60**
2020 unweighted av.			**74**			**81**
America unweighted av.			**62**			**61**
Asia unweighted av.			**68**			**71**

Notes and sources: see table below

Notes to table 3.2.1 and 3.2.2

	1990	1996	latest (1998 or 1999)
Australia			1998/9 ABS 1321.0 SME is defined as less than 100 employed
Canada	1992	Census 1996 excluded agriculture, mining, fishing	2001 - Statistics Canada CANSIM II, table 282-0008 excludes agriculture mining
China	1992 Chen (2000) p 104 table 2.1 assumes all private sector establishment are SMEs. There is no available breakdown by size of private enterprises.	1995 as for previous	1999 as for previous
Hong Kong, China	p131 APEC (1994) no actual figures available		www.sme.gcn.gov.hk
Japan	Figures are for Japanese definition, not for < 100 employees, so the figures here are slightly overstated		1999 SME White Paper (2001)
Korea	p 158 APEC (1994)	Hong (1999) et al figures are for services and manufacturing, and exclude non employing. Maximum size for SMEs is 100	1999 SMBA website http://www1.smba.go.kr
New Zealand	APEC (1994) p 196		SMEs in NZ (2000)
Peru	1994		1997 Industrial Statistics supplied by Peru, does not include non employing enterprises
Philippines	APEC (1994) p 209	BSMBD data. Includes services and manufacturing. Defines SMEs as <200.	National Statistical Office - data are not comparable with previous in this table http://www.census.gov.ph/data/sectordata/2000/establishment00.html
Russian Federation		Russian SME Resource centre	
Singapore	1990. Note that Singapore manufacturing statistics do not cover firms with less than 10 employees so this understates the role of micro firms.		
USA			SBA - defines SME as <100, but includes unincorporated

3.3 The contribution of micro, small, and medium SMEs to employment

Key Points:

- ***About 40% of private sector employment (estimated roughly at about 500 million) in APEC comes from about 500,000 large firms which employ more than 100 people.***

- ***SMEs (less than 100 employees) make up about 98% of all enterprises in APEC, and contribute about 300 million jobs, or 60% of private sector employment in APEC at the end of the decade to 2000.***

- ***Most of this employment comes from small and medium sized firms which employ between 5 and 99 people. These firms contribute more than proportionally to employment. About 9 million such SMEs (or about 21% of SMEs) employ about 38% of the total APEC private sector workforce, or about 190 million. These firms are likely to be able to expand their international activities relatively easily, if given the opportunity to do so.***

- ***Micro enterprises with less than 5 people, contribute less than proportionally to employment; they make up about 74% of all private sector enterprises in APEC, but employ only 30% of the people employed in the private sector.***

- ***Small enterprises (5 - 19 employees) make up about 17% of enterprises, and contribute about 20% of APEC private sector employment.***

- ***Medium sized enterprises (between 20 and 100 employees) contribute more than proportionally to employment; although they make up only 4% of enterprises, they contribute about 19% of private sector employment.***

- ***There is limited evidence of a "missing middle" in the 2020 economies. The 2020 economies (ecluding Korea) in APEC have only 10.7% small firms and 2.6% middle sized firms, as against the 2010 economies having 20.9% and 5.3% respectively. Contrast this with the 2010 average contribution of medium sized firms, of 19% of jobs, and 5% of enterprises, and there is some evidence of an under representation of medium sized firms in those 2020 APEC economies which will make it harder fot 2020 economies to develop an internationally competitive SME sector.***

Table 3.3.1 gives an idea of the relative contribution of micro, small and medium firms to employment in roughly comparable terms. For these purposes:

> ***micro*** firms employ between 0 and 4 employees. (Note that some economies do not keep statistics on non-employing firms, and do not cover firms in manufacturing that employ less than a certain number (say 5 or 10 employees) so this category tends to be understated in the official figures.);
> ***small*** firms employ between 5 and 19;
> ***medium*** employ between 20 and 99;
> ***large*** firms employ 100 or more than 100.

These definitions are at variance with the definitions of SMEs used in many economies, and so table 3.3.1 below is based on re-analysis of size class data where these are available. The specific size classes used are set out in the notes to tables 3.3.1 and 3.3.2.

Breakdowns by size class are difficult to get, especially for some of the 2020 economies. Caution should be exercised in using tables 3.3.1 and 3.3.2 to make comparisons, or to look at the relative role of different sizes of firms in 2020 versus 2010 economies.

In section 3.1 it was estimated that total private non agricultural employment in APEC was about 500 million, out of a total employment of about 1.2 billion. SMEs contribute about 60% of this private sector employment, or about 300 million jobs. The balance is contributed by large firms (those employing more than 100 people). There were about 50 million SMEs, and about 500,000 large firms in APEC at the end of the first APEC decade, in 2000. On an unweighted basis (as shown in table 3.3.1) the SME contribution to employment is about 66% of all private non agricultural employment.

Micro enterprises make up about 75% to 80% of all enterprises in APEC. That is, of the 50 million or so SMEs in APEC, about 37.5 to 40 million, employ less than five people. These micro enterprises contribute only about 30% of the employment in APEC on an unweighted basis. Micro enterprises contribute more to employment in the 2020 economies than in the 2010 economies. They contribute more than this to *jobs*, because many micro enterprises do not actually employ anyone, they just provide a job for the entrepreneur.

On an unweighted basis, small (defined here as employing between 5 and 19 people) make up about 17% of enterprises and provide about 20% of private sector non agricultural employment. Medium sized enterprises (defined as employing between 20 to 99 people) make up only about 4% of enterprises, but provide about 18% of the employment. There are thus about 10 million small and medium enterprises which provide about 40% of private sector employment. These firms are large enough that they are likely to be able to expand their international activity relatively easily if given the opportunity to do so.

There is some anecdotal and statistical evidence that there is a "missing middle" in some 2020 APEC economies. In economies such as Indonesia, Mexico, Peru, Philippines, the Russian Federation, and Thailand, medium sized enterprises (that is, those employing between 20 and 99 people) may be under represented. This phenomenon is important because these medium sized firms are often a major source of growth and of international competitive advantage, since they play an important role in supply chains of large firms as subcontractors, and in their own right as internationally competitive niche players. The missing middle can be seen as a much lower representation of medium sized enterprises, and a much smaller contribution to employment of those medium enterprises in some developing economies. This usually corresponds to a much greater contribution of micro enterprises. Typically for example, the contribution to employment of *medium* sized enterprises is around 8% in some developing economies, in contrast to about 20% contribution in most developed economies; the contribution of 2010 medium sized firms is 19.94% in table 3.3.1. Medium sized enterprises typically make up 2.5% or so of enterprises in these "missing middle" economies, in contrast to about 5% to 8% in more developed economies. The figures for 2020 economies are distorted by Korea in tables 3.3.1 and 3.3.2. Korea has already developed an active SME sector which is internationally competitive; Korean medium sized SMEs contribute 36.2% of employment, and make up 8.6% of Korean enterprises. These is no evidence of a missing middle in Korea. However, if we take out Korea, then the unweighted average for the remaining 2020 economies in table 3.3.1 drops to just 10% of jobs, and the percentage of medium sized enterprises drops to 1.09%. Contrast this with the average contribution for 2010 economies of medium sized firms, of 19% of jobs, and 5% of enterprises, and there is some evidence of an under representation of medium sized firms in those 2020 APEC economies for which data are available. The shortage of medium sized enterprises in these economies tends to be made up by a higher percentage and contribution coming from micro enterprises.

In dynamic terms, the potential for a firm to grow from a micro firm, to become a small firm and then to grow to a medium sized firm, and then finally to become a large firm is an important characteristic of a healthy business environment. In many economies, the policy and business infrastructure is still not geared to allow this to happen readily. As APEC moves closer to 2010 and 2020, more attention will have to be paid to providing a suitable business environment and policy infrastructure which facilitates this development. Otherwise, the 2020 economies will be left with structurally imbalanced economies with disproportionate numbers of micro enterprises, unable to compete in an APEC wide market.

Table 3.3.1 Contribution of micro, small, and medium SMEs to private non agricultural employment in APEC in comparable terms - percentages - latest available data

	micro < 5	small 5 - 19	medium 20 - 99	large 100+	all SME
Australia	25.9	20.9	19.2	34.0	66.0
Canada	8.9				
Hong Kong, China	31.1	13.0	24.8	31.1	59.4
Japan	13.1	29.9	26.9	30.1	69.9
Korea	31.2	11.3	36.2	21.3	78.7
Mexico	36.2	13.9	15.2	34.8	65.2
New Zealand	23.0	18.0	19.0	40.0	60.0
Peru	62.5	16.6	8.8	12.1	87.9
Philippines	36.7	25.8	7.1	30.5	69.5
Russian Federation	36.7	25.8	7.1	30.5	69.5
Singapore	7.1	16.8	19.2	56.9	43.1
USA	5.2	13.6	17.9	63.3	36.7
Unweighted av.	**30.10**	**19.68**	**18.81**	**33.11**	**66.03**
unweighted av. 2010	**24.96**	**21.28**	**19.94**	**37.93**	**60.72**
unweighted av. 2020	**41.64**	**16.88**	**16.81**	**24.68**	**75.32**

Notes: see at foot of table 3.3.2

Table 3.3.2 Micro, small, and medium SMEs to private non agricultural as a percentage of the number of firms or establishments in APEC in comparable terms - latest available data

	micro < 5	small 5 - 19	medium 20 - 99	large 100+	all SME
Australia	69.9	24.3	4.9	1.0	99.0
Brunei Darussalam	42.0				
Canada	58.8				
Chile	82.1	15.0	2.1	0.9	99.1
Hong Kong, China	86.8	7.6	4.9	0.7	99.3
Japan	56.5	34.7	7.4	1.3	98.7
Korea	72.7	17.8	8.6	0.9	99.1
Mexico	91.7	6.3	1.6	0.4	99.6
New Zealand	84.2	7.1	8.0	0.6	99.4
Peru	96.5	3.1	0.3	0.1	
Philippines	91.1	8.2	0.4	0.4	99.6
Singapore	67.4	24.3	6.1	2.2	97.8
Thailand	78.99	18.42	2.04	0.27	99.45
USA	60.5	28.9	8.9	1.7	98.3
Unweighted average	**74.21**	**16.71**	**4.19**	**0.91**	**99.07**
unweighted av. 2010	**70.74**	**20.96**	**5.32**	**1.27**	**98.73**
unweighted av. 2020	**78.83**	**10.76**	**2.60**	**0.39**	**99.55**

Notes: caution should be taken in the use of total and average figures because missing data, especially for 2020 economies distorts these.

See below for sources and actual size classes

Unweighted average = average of the non zero statistics for all APEC economies. Unweighted averages are the averages of the actual percentages in the relevant column, not weighted by the size of the economy (which thus gives relatively less weight to large economies like China and USA and relatively more weight to small economies like Hong Kong, China and Chinese Taipei).

Percentages in the totals at the bottom of the table do not sum horizontally because the individual rows, or economies, are not weighted.

2010 - economies seeking to meet 2010 targets (*identified in italics*)

2020 - economies seeking to meet 2020 targets

The definition of an SME is that used by the economy concerned

Notes to table 3.3.1 Actual Size Classes

	micro	small	medium
Australia	non employing plus 1 - 4 employees	5 - 19	20 - 99
Canada	1- 4, 2001 data for establishments includes some agriculture and non employing	no data available	
Chile	1 - 4	5 - 49	49 - 199
Hong Kong, China	1 - 9	10 - 19	20 - 99
Indonesia			
Japan	1- 4 does not include manufacturing below 4	5 - 19	20 - 99
Korea	1 - 4 does not include manufacturing, which starts at 5. Does not include non employing. Manufacturing and services only.	5 - 19	20 - 99
New Zealand	0 - 5	6 -19	20 - 99
Peru	0 - 4	5 - 19	20 -100
Philippines	1 - 5	6 - 19	20 - 200
Singapore	Services <5, manufacturing not included	Manufacturing 10 - 19, Services 5 - 19	Manufacturing and Services 20 - 99
Chinese Taipei	Services < 5, manufacturing < 20.	no data available	
Thailand	1- 4	5 - 19	20 - 99
USA	0 - 4 (does not include non employing)	5 - 19	20 - 99

Notes and sources to Table 3.3.1

Australia	1998/9 ABS 1321.0 p 6, 29, and 32
Canada	Industry Canada figures
Hong Kong, China	Quarterly Report of Employment and Vacancies Statistics Dec 2000
Japan	1998 for manufacturing, 1997 for wholesale and retail. Only covers these three industries
Korea	1997 for manufacturing, 1996 for services. Hong et al (1999).
New Zealand	1999 SMEs in New Zealand 2000
Philippines	1995 BSMBD manufacturing and services
Singapore	1998 for manufacturing and 1999 for services, so figures are approximations
Thailand	1997 Industrial Census
USA	1998. http://www.sba.gov/advo/stats/data.html USA figures do not include about 10 million self employed, and thus understate contribution to jobs by SMEs

3.4 Changes in the relative composition by size of SMEs in APEC

Key Points:

- ***For the economies for which data are available, there appears to have been an increase in the relative importance of small firms (those with 5 - 19 employees) in the last decade.***
- ***Large firms have become relatively less important as employers, except in Mexico, USA and Japan.***
- ***Micro firms have generally become less important in jobs and establishments.***

Table 3.4.1 Change from 1990 to latest year available in composition by size class for establishments and jobs

	change in establishments				change in jobs			
	micro	small	med	large	micro	small	med	large
Australia	-20.8	19.1	1.4	0.3	-10.9	11.1	0.7	-0.9
Canada	-1.6	-3.7	8.6	-0.2	4.3	-3.2	-0.9	-0.2
Japan	-3.1	2.2	0.6	0.3	-1.6	0.8	0.4	0.4
Mexico	-3.1	2.5	0.5	0.1	-5.8	-0.4	-4.6	10.9
New Zealand	-0.2	4.9	-5.0	0.4	-0.1	10.6	-7.9	-2.6
Peru	0.3	-0.2	0.0	0.0	1.1	0.9	-1.3	-0.7
Philippines	0.3	-0.1	-0.1	-0.1	-2.2	3.1	-0.2	-0.7
Singapore	1.9	3.3	-2.5	-2.7	1.5	7.1	5.7	-14.4
USA	0.4	-0.7	0.2	0.1	-0.4	-1.1	-0.7	2.2
unweighted av.	**-2.9**	**3.0**	**0.4**	**-0.2**	**-1.6**	**3.2**	**-1.0**	**-0.7**
unweighted av 2010	**-3.9**	**4.2**	**0.6**	**-0.3**	**-1.2**	**4.2**	**-0.4**	**-2.6**
unweighted av 2020	**-0.8**	**0.7**	**0.1**	**0.0**	**-2.3**	**1.2**	**-2.0**	**3.2**

Notes: caution should be taken in the use of total and average figures because missing data distorts these, especially for 2020 economies.
Percentage changes refer to the contribution of that size class in the latest available year *minus* the percentage contribution in 1990. The sum of each row is zero - that is any percentage gain by one size class must be at the expense of another size class.
See section 3.4 for sources and actual size classes. The definition of each size class is standardised as far as possible, and the definition of an SME is not necessarily that used by the economy concerned.
Unweighted average = average of the non zero statistics for all APEC economies. Unweighted averages are the averages of the actual percentages in the relevant column, not weighted by the size of the economy (which thus gives relatively less weight to large economies like China and USA and relatively more weight to small economies like Hong Kong China and Chinese Taipei).
2010 - economies seeking to meet 2010 targets (*identified in italics*)
2020 - economies seeking to meet 2020 targets

It is quite difficult to obtain reliable size breakdowns, and even more difficult to get comparable size breakdowns over a decade. Table 3.4.1 should be treated with some caution, especially in regard to its representativeness of 2020 economies. However, it shows some tantalising phenomena. Generally the table shows that the relative contribution of small firms (those employing between 5 and 19 employees) has increased on average in APEC over the decade, mostly at the expense of micro enterprises and large firms. The effects are quite small. To put them in perspective, for every 1000 firms in APEC there seems to have been a shift such that there are 30 less micro firms, and 30 more small firms than there were at the beginning of the decade.

Large firms have become less important in numbers and in terms of employment in relative terms. This may have something to do with the increased opportunities for international business, and with small firms being relatively more able to take advantage of such opportunities. This might also explain the apparent decline in the relative importance of micro enterprises; very small firms may have more difficulty competing internationally. However, as shown in section 5, SMEs remain substantially under represented in international trade and investment in APEC. Even though SMEs, and particularly small enterprises, have gained ground relatively during APEC, there is still a lot that could be done to enhance their contribution, especially their international contribution.

3.5 The contribution to employment by SMEs by major industry sector

Key Points:

- ***Services sector SMEs dominate APEC, and contribute about 80% of all private sector employment in APEC. This contribution is increasing at the expense of primary and manufacturing sector SMEs.***

- ***Manufacturing SMEs contribute about 15% of employment in APEC.***

- ***Agricultural and primary activities contribute about 5% or less of employment in APEC, though the contribution is much higher in some economies, particularly some 2020 economies.***

Table 3.5.1 shows that the vast majority (around 80%) of SME employees are in the services sector. For the economies for which data are available, only a small proportion of SME employees are in agriculture or primary industry, and about 15% to 20% in manufacturing. Table 3.5.1 gives a somewhat distorted picture, because breakdowns by industry grouping and size of firm are difficult to obtain for most 2020 economies. Table 3.5.2 provides a better comparison across economies, but does not allow an assessment of the relative role of SMEs. What the table confirms though is that agriculture makes up only about 10% of GDP of the 2020 economies, and about 4% of GDP of the 2010 economies. Manufacturing makes up about 20% of GDP for both 2020 and 2010 economies.

Where figures are available, they indicate that the relative importance of primary sector and manufacturing sector has tended to decline over the decade, and that of the services sector has tended to increase.

SMEs face rather different prospects, depending on what sector they are in, as a result of APEC's moves to meet Bogor goals of trade and investment liberalisation. The issue of which industry sector SMEs belong to is one of importance to APEC, because it has implications for the impediments that SMEs face as they move across borders to new opportunities, and the threats faced by uncompetitive SMEs in inefficient industries. APEC has not been very forward looking in relation to these SME issues by sector. For example:

- Agriculture has not so far been a major target of APEC activity. SMEs in agriculture are not likely to benefit much from liberalisation moves, but are likely to be affected by them. Although less than about 10% of SMEs are in agriculture they pose special problems in structural adjustment because many are small and inefficient by world standards. As agribusiness becomes more globalised these SMEs will face shrinking markets, and will need to adapt or exit, with consequent social disruption. APEC does not appear to have paid any direct attention to this issue, leaving it more as a member government policy issue.

- About 20% of SMEs, or about 10 million in APEC, are in manufacturing. Many of these manufacturing SMEs face increased competitive pressures as a result of APEC moves. Tariff liberalisation affects manufacturing more than other industry sectors, and is a major part of most IAPs (Individual Action Plans). However because many of these manufacturing SMEs are internationalised along large firm supply chains, their ability to respond and compete is often linked to the ability of the larger firms to respond to change and to compete in the new world order. APEC has addressed some of the issues in terms of EVSL (early voluntary sector liberalisation), but the issues facing the SMEs affected have not been a major component of IAPs or EVSL.

- SMEs in the services sector are the ones most likely to be able to take advantage of competitive opportunities to move across borders. These services SMEs make up the vast bulk of SMEs, over 80% of firms and of SME employees are in services. Service sector SMEs can compete internationally even when they are relatively small, especially in new and emerging service industries, so there are potential gains to be had from encouraging them to do so. However, most of the services activity in APEC is overshadowed by mature services sector industries, such as telcos and banking. APEC has not attempted to systematically identify, monitor, and address impediments to SME expansion abroad, and it is in the services sector that non tariff impediments

are particularly rife. These barriers are often the result of government regulations, or of differing standards. Multilateral action is needed to reduce them, and APEC could play a much more active role in doing so.

Table 3.5.1 Contribution to SME employment by major industry sectors percentages

	1990			latest available		
	primary	manufacturing	services	primary	manufacturing	services
Australia	9.33	16.47	74.20	5.51	6.21	88.28
Canada	2.60	18.20	79.20	2.90	15.80	81.40
Hong Kong, China					11.71	88.29
Japan				0.1	21.5	78.3
Korea				0.23	28.2	71.7
New Zealand				22.54		
Russian Federation				1.97	22.12	75.91
Singapore				0.00	29.83	70.17
Chinese Taipei	16.47	31.16	52.37	10.58	28.49	60.93
USA	1.60	14.10	84.30	0.70	12.74	86.57
total ratio	**3.65**	**16.15**	**80.20**	**1.35**	**17.92**	**80.49**
unweighted average	**15.08**	**18.11**	**66.81**	**4.95**	**19.61**	**77.95**
2010 unweighted average	**7.50**	**19.98**	**72.52**	**6.05**	**18.04**	**79.14**
2020 unweighted average	**45.40**	**10.60**	**44.00**	**1.10**	**25.09**	**73.81**

Notes: caution should be taken in the use of total and average figures because missing data for 2020 economies distorts these. The unweighted average figures do not sum to 100% because of the lack of weighting.
Primary - includes agriculture, mining, fishing, forests.
Manufacturing - is just manufacturing
Services - is a residual, and includes all non manufacturing or non primary activities, and includes construction, utilities.
Each row adds to 100%.
Total ratio = total for all APEC in that sector divided by the total employment in SMEs for all APEC for those economies for which data are available
Unweighted average = average of the non zero statistics for all APEC economies. Unweighted averages are the averages of the actual percentages in the relevant column, not weighted by the size of the economy (which thus gives relatively less weight to large economies like China and USA and relatively more weight to small economies like Hong Kong China and Chinese Taipei).
2010 - economies seeking to meet 2010 targets (*identified in italics*)
2020 - economies seeking to meet 2020 targets
The definition of an SME is that used by the economy concerned
See sources below.

Notes and sources to table 3.5.1

	1990	latest - dates given at front of cell
Australia	1991/2 ABS 1321.0 Small Business in Aust p25. Figures are approximate for agriculture and based on 1994/5.	1998/9 ABS 1321.0 1999 p 31 figures for agriculture are approximate. SMEs less than 200 employed.
Canada		1999 supplied by Industry Canada
Hong Kong, China		1999 www.sme.gcn.hk establishment data
New Zealand		1999 SMEs in New Zealand. Seems to include self employed. SMEs defined as less than 19 employed.
Russian Federation		1998 Russian SME Resource Centre http://www.rcsme.ru
Chinese Taipei	1991	1999 White Paper on SMEs 2000 p 268
USA	1991 SBA State of Small Business (1994)	1998 SBA http://www.sba.gov/advo/stats/data.html. SMEs less than 500 employed

Table 3.5.2 Percentage of GDP generated by major industry sectors

	latest available - usually 1999 or 2000			
	primary	manufacturing	industry (includes manufacturing)	services
Australia	3.3	13.6	26.8	69.9
Brunei Darussalam	2.7	9.9	46.0	51.0
Canada	2.8	16.6	32.8	64.7
Chile	8.4	15.8	35.0	56.5
China	15.9	9.1	50.9	33.2
Hong Kong, China	0.0	15.4	14.7	85.2
Indonesia	16.0	26.2	47.0	36.0
Japan	1.6	26.6	33.7	64.7
Korea	4.7	31.3	42.0	52.9
Malaysia	8.6	34.3	51.7	39.7
Mexico	4.1	20.4	27.5	68.0
Peru	7.9	15.6	27.2	65.0
Philippines	15.9	22.6	31.1	53.6
Russian Federation	6.4		39.0	54.6
Singapore	0.0	26.5	34.3	65.6
Thailand	10.5	32.0	40.0	49.5
Viet Nam	24.3	19.6	36.6	39.1
unweighted average	**8.9**	**20.97**	**36.3**	**55.8**
2010 unweighted average	**4.0**	**19.08**	**29.6**	**67.8**
2020 unweighted average	**10.6**	**22.10**	**39.9**	**49.3**

Source: World Bank http://www.worldbank.org Country data. Note that figures relate to *all* firms, not just SMEs. Data on USA are not available from WB.

3.6. SME contribution to sales, receipts or shipment values

Key Points:

- ***SMEs appear to contribute about 50% to total receipts, sales, or value added.***

Statistics on the contribution of SMEs to value added, sales, or output are often difficult to get, and difficult to interpret in comparable terms. Table 3.6.1 suggests that SMEs contribute about 50% or so of the total revenue or sales. This is less than the contribution to private sector jobs by SMEs which is more than of 60% or more, but it still shows that SMEs typically make up about half the economy.

There is no good reason why the contribution of firms to value added cannot be tracked more accurately. Almost all the APEC economies, Hong Kong China, and USA excepted, have some form of value added tax. It is thus possible, in principle, to collect data on value added by firm size on an annual basis

Table 3.6.1 Percentage of sales by SMEs

	1990	1996	latest
Australia	54.8	53.1	
China	69.5		
Japan	52.0	51.0	51.6
Korea	45.8	46.7	47.4
New Zealand			55.0
Chinese Taipei	34.5	34.3	29.0
USA	46.1	37.5	
unweighted average	**50.4**	**44.5**	**45.7**

Notes: caution should be taken in the use of unweighted average figures because missing data distorts these. Note that this table is based on different series and definitions which makes comparisons difficult. See table below for details.
Unweighted average = average of the non zero statistics for all APEC economies. Unweighted averages are the averages of the actual percentages in the relevant column, not weighted by the size of the economy (which thus gives relatively less weight to large economies like China and USA and relatively more weight to small economies like Hong Kong China and Chinese Taipei).
The definition of an SME is that used by the economy concerned
See sources and actual dates below.

Notes to table 3.6.1

	1990	1996	latest
Australia	1991 APEC (1994) p 63 SME is up to 200 employees. Refers to sales	1994/5	
China	1992 APEC (1994) p124		
Japan	1990 JSBRI (1995) p214 shipment value of manufacturing only	1996 JSBRI (2000)	1998 JSBRI (2000) p 181
Korea	1991 Hong et al (1996) table 11 value added in manufacturing	1996 SMBA Manufacturing shipments	1999 SMBA manufacturing shipments
New Zealand	1998 NZ (2000) p 9 SME employing less than 19 people contribute 35%. SMEs with less than 100 people contribute 55%.		
Chinese Taipei	Chinese Taipei (2001) p 295 total sales		2000
USA	1991 SBA (1995) p 191 based on size classes by employment	1997 SBA series is not comparable to 1991 figure - size classes based on receipts, with SME having less than $100 million receipts.	

3.7 Long term trends

Key Points:

- ***SMEs seem to have increased their overall contribution to the economy over the last two or more decades***

There is a tenuous suggestion that SMEs became more important in their contribution to economic activity over the last two decades Over the last two decades, in all economies for which data are available, the output contribution increased, except for Japan (where it remained steady) and Chinese Taipei (where it fell from 46% to 39%). Similarly, over the last two decades the percentage of the workforce employed by SMEs grew in all economies except Indonesia. The effect of policy shifts can be seen over the longer term. For example, Korea adopted policies in the 1960s and 1970s that tended to downplay the role of SMEs, and only reversed these policies to actively support SMEs in the 1980s. Singapore's policy has been aimed more at major MNCs and their subsidiaries for several decades, and only in the last decade has changed to give more emphasis to the growth of SMEs as such.

Table 3.7.a SME contribution to output
percentages of total - manufacturing output unless otherwise stated

	1960s	1970s	1980s	1990s	
Indonesia			23	30	
Japan			52	52	
Korea	43	34	33	44	
Philippines			24	27	value added
Singapore	53	19	18	19	
Chinese Taipei	na	37	46	39	

Notes and sources: Adapted from UNCTAD (1998).
Japan: MITI (1994) White paper on SMEs.
Singapore: Report on the Census of Industrial Production.
Chinese Taipei: - White paper (1998) on SMEs. Figures are for sales, not output.
Korea: (Seong 1995 p125). Korean policies changed in the 1980s to increase the importance of SMEs. Data for 1960s is from 1963 to 1969. Sourced from Korea Development Bank 1963/66, Economic Planning Board thereafter.
Indonesia: Central Bureau of Statistics, Industrial Statistics and Small Enterprises survey, various years.
Philippines: Small and Medium Enterprise Development (SMED) Council Research

Table 3.7.b SME contribution to employment
percentages of total - manufacturing employment unless otherwise stated

	1960s	1970s	1980s	1990s	
Australia			21	29	manufacturing only
			45	47	all small business
Indonesia			48	42	
Japan		70	76	85	
Korea	58	46	61	63	
Philippines		45	47	50	
Singapore	55	29	31	35	
Chinese Taipei	43	46	63	80	

Notes and sources: Adapted from UNCTAD (1998), and as for table 3.7.1
Australia: - ABS 1321.0 2000 table 2.3 refers to small business only.
Indonesia - figures are for 1986-1989, and 1990 - 1993.

4. The Growth and Dynamics of SMEs in APEC

4.1 Comparison of growth in the number of SMEs, employment in SMEs, GDP growth and total employment growth

Key Points:
On the basis of rather limited available information, it appears that:

- ***APEC's SMEs may not have been able to take advantage of the opportunities created by APEC. The rate of growth of SMEs in the decade (about 0.7% pa) is much lower than the rate of growth of GDP;***

- ***There is some sign of catch up occurring in the 2020 economies, where growth of SME establishments will bring those economies closer to the 2010 economies "entrepreneur density" of about 5% (or one SME entrepreneur manager for every 20 people). However this catch up rate is too slow to achieve equivalence by the 2020 target dates;***

- ***APEC's SMEs seem to be increasing output per person at a high rate of 4% pa, suggesting increased competitive pressures are forcing SMEs to increase productivity at historically high rates. This has some implications for SME job creation, to the extent that rapidly changing competitive pressures may be hampering SME job creation;***

- ***The rate of growth of SME employment has not quite kept pace with the growth of total employment across the first APEC decade, suggesting that although SMEs remain structurally important (they contribute about 60% of all private sector jobs) their dynamic ability to create jobs has been relatively less than that of other sectors in the economy;***

- ***It has been the under performance of the larger economies of USA, Japan, China and The Russian Federation which has contributed to the SME employment growing more slowly than the total employment growth. This is probably attributable mostly to increased productivity in SMEs in the US, and to deflation and structural change in Japan, China and The Russian Federation where SME employment was affected through much of the second half of the decade;***

- ***SMEs were the major job engine in Australia, Canada, Mexico, New Zealand, Singapore and Chinese Taipei throughout the APEC decade, as SME employment growth outstripped total employment growth; and***

- ***SMEs in most economies showed strong resilience after the 1997 Asian crisis, but SME resilience should not be taken for granted.***

This section attempts to provide some preliminary answers to the question: "have APEC's SMEs risen at the same rate as the rising tide of benefits flowing from APEC and trade and investment liberalisation?". Analysis of SME trends and dynamics over time is difficult because of missing data, and data series that are not comparable or continuous. The analysis here can only give a glimpse of answers to fundamental questions that will ultimately be asked in assessing whether APEC has been successful in achieving its objectives, especially as they relate to SMEs.

Tables 4.1.1 and 4.1.2 endeavour to show the rate of growth of SMEs (measured in total number of SMEs, and the total number of people they employ) relative to GDP growth, and relative to the growth of total employment over three time periods:

1. the inception of APEC to the beginning of the "Asian crisis" (ie 1990 to 1996);
2. the post Asian crisis period (from 1996 to latest available data after 1996, which is usually 1999 or 2000);
3. the total period (from the inception of APEC to the latest available data, which are usually for 1999 or 2000).

The a priori expectations (or "hypotheses") are that:

- the total number of SMEs in each economy should grow about as fast as the economy as a whole (that is as fast as GDP growth);
- employment in SMEs should grow at least as fast as the economy as a whole (GDP); and
- employment in SMEs should grow at least as fast as fast as total employment.

If any of these a priori "hypotheses" is contravened then it is a crude indication that the benefits of globalisation and of APEC are not being passed evenly to SMEs. The main benefit of APEC can be seen in increased trade and investment opportunities, leading to increased GDP growth. If the number of SMEs, or SME employment, grow more slowly than GDP, then it suggests that opportunities for SME start ups are not being created as fast as GDP is growing. If SME employment grows more slowly than GDP, then there may also be increased pressures to compete, leading to pressures to increase SME productivity and thus reducing the number of employees per SME. If SME employment grows more slowly than total employment, then it suggests that there may be a redistribution of gains occurring in favour of the larger firms, or to the State. There is nothing intrinsically wrong if any of these things are found, but they are symptoms of broader issues.

Obviously this a very simplistic approach; many factors affect the growth of SMEs, and APEC is only one of those factors, but APEC and its agenda of globalisation is an easy political target. SMEs are a potent political force, because, as shown in previous sections, they contribute in excess of 60% of the private sector jobs in APEC. If SMEs in APEC are being disadvantaged, or subject to much greater competitive pressures then it is useful to know.

Interpreting these figures requires some care; there are data for almost all economies for GDP and total employment, but estimates of SME employment are more difficult to get, especially for 2020 economies. The average or total figures are provided as weighted and unweighted. The weighted figures here are weighted by GDP. Because the USA makes up nearly half of APEC's GDP, it carries a weight of .46 in 1996, and .51 in 2000. Japan and USA together make up some 75% of the weights for 2000. Weighted figures give the growth for APEC as a whole. For GDP growth, total weighted figures for 2010 and 2020 economies effectively give a relative contribution to growth figure, so that in the decade from 1990 to 2000 the total growth of APEC's GDP was, on a weighted basis, 3.14% pa, the 2010 economies contributed 2.32% per annum of this, and the 2020 economies 0.81% pa. The unweighted average figures at the bottom of the tables are averages of only those economies for which there are data in that period. Comparable, continuous employment series are not available some economies, so these economies data are also excluded from the calculations for the weighted averages at the foot of the tables.

It would also be helpful to have data series on GDP per SME and the proportion of GDP contributed by SMEs, but these data are not available. Very few economies (see section 3.6) can provide breakdowns by firm size of GDP or value added. Where they can, the GDP or output contribution of SMEs seems to be constant at around 50% of GDP.

Given this context, there seems to be reasonably consistent evidence that:

1. **The number of SMEs has grown much more slowly than GDP.** The total unweighted growth of SME establishments over the decade was 3.37% per annum, and when weighted by the relative size of each economy, this drops to 2.52% per annum. However, after taking account of new members entering APEC, and after taking account of statistical aberrations (see section 2.1) it appears that GDP growth in APEC has been much greater than the growth of SMEs. GDP grew by 3.89% per annum unweighted or 3.14% per annum weighted. The actual growth of SME establishments has only been about 0.7% per annum.

2. **In about half the economies, SME employment growth has matched or outstripped total employment growth, but overall SME employment growth in APEC has been slightly slower than total employment growth.** Interpretation of the results is a little difficult because of missing data, especially in some of the larger 2020 economies, and by the distorting influence of major structural changes taking place in the Russian Federation and China, where SME employment fell sharply during part of the decade. However, over the whole decade, unweighted average SME employment growth appears to have been 3.27% per annum in comparison to 1.71% for total employment growth. In the post Asian

Crisis period (1996 - 2000) SME employment grew at 2.68% in comparison to only 1.27% per annum for total employment, suggesting a strong rebound effect in SMEs. Unweighted average SME employment growth exceeded total unweighted employment growth in all three periods in 2010 economies, and in all but the 1996 - 2000 period for 2020 economies. This last effect is attributable to a sharp fall in SME employment in the Russian Federation and China in that period as restructuring occurred.

This picture is different when viewed from a *weighted* perspective. There are two forms of weighted figures used in the totals figures in tables 4.1.1 and 4.1.2. The weighted E figures exclude some economies which have discontinuous data series, and which thus distort comparisons across the time periods. The total weighted figure gives the weighted total of all economies for which there are data in the particular period in question, and thus tend to be distorted by statistical aberrations.

The picture is different when looked at from a weighted perspective because the two largest economies, Japan and the USA, had such relatively poor performance in SME job generation during the decade. Japan and USA together make up about 75% of APEC's GDP, and thus carry 75% of the weights used in these two tables. For example, in Japan employment in SME shrank by nearly 1% per annum in the period after the Asian Crisis. Total employment in Japan also shrank during this period, but only by 0.12% per annum. USA managed to grow SME employment by 0.69% per annum post 1996, but total employment grew by more than double this rate, at 1.78% per annum. After excluding economies with discontinuous data series (that is using the weighted E figures) for APEC as a whole, SME employment growth was outstripped by total employment growth in the post Asian crisis period, and for the decade as a whole. Up until 1996, again after excluding those economies with discontinuous statistical series, SMEs were creating employment at a slightly faster rate (1.51% per annum) than the total rate of employment growth (1.35% per annum).

However, if we look at all the fourteen economies for which there are some data, eight recorded SME employment growth *in excess* of total employment growth over the decade. The six that recorded *slower* SME employment are China, Hong Kong China, Japan, Korea, the Russian Federation and USA. For most of these, external effects explain why SMEs were probably unable to create employment effectively. Hong Kong China and Japan were afflicted with persistent deflation and periodic recession during the latter half of the decade, which affected SMEs more than large firms. China and the Russian Federation engaged in major structural changes during the decade which destroyed many jobs, including those in SMEs. Evidence since 1999 suggests that in both China and the Russian Federation SME employment has been very strong. The Korean figure is possibly misleading. Although according to the ILO database, total employment rose during the 1990 - 1997 period in Korea, Hong (1999) shows that employment in large firms fell during this period at a rate much greater than that of SMEs (see section 4.2 for more details).

On the other hand, Australia, Canada, Mexico, New Zealand, Peru, Singapore, Chinese Taipei, and Thailand all recorded SME employment growth in excess of total employment growth over the decade, and in these economies SMEs appear to have played a major role in job creation.

3. **SME employment growth is less than GDP growth.** There is some consistency, that the rate of growth of SME employment is about half, or less than half, of GDP growth for all three periods.

What might all this possibly mean?

First, it confirms that SMEs are a major engine of job growth. Without the contribution to employment growth by SMEs there would be less employment opportunities, and many more social problems in APEC economies. That said however, for all of APEC combined, SMEs have generated employment opportunities at a slower rate than that of total employment growth over the decade.

This is largely due to the relatively poor performance in the larger economies of USA, Japan and China, where SME employment grew more slowly than total employment.

Second, it suggests that SMEs in some economies showed strong resilience post the 97 Asian crisis. In the period 1996 - 2000 unweighted SME employment grew at 2.68% per annum relative to total employment growth in APEC of only 1.42% per annum. This is superficial evidence of a strong bounce back of SMEs relative to the rest of the APEC economy. However, if we look at the Asian economies most affected by the Asia crisis, only some of them show strong SME employment growth in this post shock period. China, Hong Kong China, and Japan all show SME employment falling faster than total employment. On the other hand in Korea, Singapore, and Chinese Taipei SME employment growth outstripped total employment growth. It seems that SME resilience should not be taken for granted. The lack of comparable available data for other Asian economies makes further comparison difficult. However, it is interesting to note that some of the non Asian economies (Australia, Canada, Mexico, and New Zealand) showed very strong SME employment growth relative to the total employment growth in this period. This may suggest another form of resilience, whereby SMEs seek new markets and opportunities more readily, but there is no statistical evidence to support this proposition.

Third, there is a major structural problem with low entrepreneur densities within 2020 economies in APEC which seems not to be correcting itself fast enough. After making allowance for statistical aberrations and new members, the growth of SMEs in APEC has been only about 0.7% per annum (see section 2.1) over the decade, much less than the growth of GDP of about 3.14% per annum. In section 2.3 it was shown that there is a structural imbalance in APEC; 2010 economies have one entrepreneur manager for every 20 people, while 2020 economies have about 115 people for every entrepreneur manager.

If we look at the more advanced 2010 economies which do have reasonably complete data, the growth of SME numbers over the decade was 1.05%, approximately half that of GDP growth of 2.32%. These economies are mostly more developed economies with a strong recognition of the role of SMEs (Australia, Canada, New Zealand, Singapore, Chinese Taipei and USA). This suggests a "benchmark" growth rate for SME establishments of about half that of GDP growth.

For the 2020 economies, the total growth of SME establishments was 2.94% per annum over the decade, considerably better than the 2020 economy GDP growth weighted contribution of only 0.81% pa, but less than the unweighted GDP growth of 3.98% per annum for 2020 economies. This rate of growth of SME establishments in 2020 economies is sufficient to imply some "catch up" going on, whereby the 2020 economies are increasing the number of SME establishments at a rate which will eventually allow them to catch up with the entrepreneur ratios of the 2010 economies, albeit, not by 2020. As shown in table 2.5.1, the 2020 economies need to create about 70 million more SMEs over a 20 year period if they are to achieve the same level of entrepreneur density as the 2010 economies. This would require a growth of SME establishments in simple, non compound terms of around 25% per annum over 20 years. However, even though some of this 2020 economy SME establishment growth is real and due to strong growth in Mexico and Korea, much of this growth is attributable to improved statistical collection (such as the inclusion of all SMEs, rather than just manufacturing). Up until the end of the decade, two of the largest 2020 economies, China and the Russian Federation, were still destroying rather than creating SMEs, though evidence post 2000 suggests that both are now creating SMEs at a rapid rate.

Fourth, it suggests competitive pressures to increase productivity in SMEs. The rate of GDP growth (3.14% per annum) over the decade has been greater than the rate of SME establishment growth (2.52% per annum), which has been in turn been greater than the rate of SME employment growth (1.67% per annum). This is so whether weighted or unweighted figures are used.

This suggests a shrinkage in the size of the average SME, for which there is some limited evidence in table 2.4.1, which shows that average number of employees has declined slightly, from an average employment size of about 6.5 persons to about 6.3 persons per SME. However there is also evidence from section 3.4 and table 3.4.1 which suggests that small firms (with between 5 and 19 employees) have become relatively more important as a proportion of establishments, and as a proportion of employees, mostly at the expense of micro firms (with <5 employees) and large firms (with more than 100 employees).

This suggests that APEC wide, SME productivity is improving at about 4% per annum which in turn suggests some increased pressure on SMEs to improve their competitiveness. The logic of this is based on a simple model using the actual growth rates of GDP, establishments and employment, and the actual average employment per SME. If we assume 1000 SMEs producing an output of 100 with 6.5 employees, then assuming that output increases in line with GDP at 3.14% to 103.14, total employment (6500) increases in line with SME employment at 1.67% to 6608, and the number of SMEs increases in line with SME establishment growth, at 2.52%, to 1025.2, then:

- the number employed per SME drops from 6.5 to 6.44;
- the output per person increases from 15.38 (= 100/6.5) to 16.0 (= 103.14/6.44) or a productivity increase of 4% per annum; and
- over ten years, the number of people per SME will fall from 6.5 to about 6.23.

A 4% per annum productivity increase is historically quite high. It may mean that SMEs have on balance, responded to the APEC decade and the pressures of increased competition by higher than usual productivity increases. This in turn has implications for job creation. Rather than employing more people, SMEs may be seeking to increase the productivity of the numbers they currently employ.

Fifth, the gains from APEC may not be being shared equally. GDP growth in APEC has been quite strong over the decade, even given the Asian Crisis, and given the prolonged recession in Japan, APEC's GDP growth has been at around 3% to 4% per annum. Even though large firms have become relatively less important as employers, it would seem that they *may* have been capturing a larger share of GDP gains than SMEs. To test this really requires better evidence on the rate of growth of wages and profits by size of firm, but if the growth in SMEs numbers has been less than GDP, and the rate of growth of employment by SMEs is less than GDP growth, then there is some prima facie evidence of a redistribution of gains from SMEs to larger firms, or possibly to the State. As shown in section 3.3 there seems to be a compositional change in the structure of SMEs in APEC, such that small firms (employing 5 - 19 people) are becoming relatively more important as employers, and large firms relatively less important, except in the USA and Japan. This might suggest some credence for the view that APEC is developing in such a way that smaller economies are turning into a "branch economy" of the larger economies such as USA and Japan.

Table 4.1.1 Growth in number of SMEs, SME employment and GDP

	1990 - 1996			1996 - latest			1990 to latest		
	SME estab	SME emply	GDP	SME estab	SME emply	GDP	SME estab	SME emply	GDP
Australia	3.66	4.94	2.33	8.06	2.23	3.82	5.86	4.13	2.92
Brunei Darussalam	1.98		3.22	4.48	0.00	3.81	3.71	0.00	3.39
Canada	0.46	0.16	0.68	1.41	5.56	2.92	1.01	1.72	1.62
Chile	2.63	0.00	7.11	2.26	0.00	4.35	6.07	0.00	5.98
China	-3.93	2.90	10.46	4.92	-0.74	8.32	-1.18	1.04	9.69
Hong Kong, China	1.20	-0.66	4.92	0.34	-1.19	1.81	0.73	-0.91	3.72
Indonesia	9.07	-0.61	7.12	0.00	0.00	-0.11	4.10	0.00	4.15
Japan	-0.26	0.50	2.75	-1.52	-0.97	1.26	-0.89	-0.06	1.84
Korea	6.12	-1.46	7.59	2.50	3.67	3.93	5.78	-0.07	6.21
Malaysia	0.00	0.00	8.76	0.00	0.00	1.72	0.00	0.00	5.96
Mexico	13.46	10.64	2.02	4.95	7.65	5.03	11.91	11.18	2.91
New Zealand	9.16	0.25	2.19	-4.00	12.62	1.63	2.90	5.60	1.90
PNG			5.72	0.00	0.00	0.55	0.00	0.00	3.88
Peru	5.74	2.86	3.57	-0.15	1.72	2.98	2.17	2.52	3.44
Philippines	4.03	2.29	2.82			3.36			2.74
Russian Federation			-9.85	-1.34	-15.02	-1.46			-7.14
Singapore	8.23	5.48	8.24	7.35	19.46	5.39	8.95	10.58	7.16
Chinese Taipei	4.22	2.41	6.26	1.88	1.89	5.71	3.63	2.30	5.85
Thailand			8.53	0.00	0.00	-0.44			5.20
USA	1.55	0.97	2.31	1.83	0.69	4.48	2.52	0.88	3.06
Viet Nam	0.00	0.00	7.84	0.00		6.87			7.30
total weighted	**2.11**	**3.04**	**2.95**	**2.44**	**-0.40**	**3.67**	**2.52**	**1.67**	**3.14**
weighted E 2010	**0.83**	**0.97**	**2.13**	**1.42**	**0.40**	**2.94**	**1.05**	**0.75**	**2.32**
weighted E 2020	**2.88**	**1.78**	**0.82**	**2.63**	**0.10**	**0.73**	**2.94**	**1.12**	**0.81**
unweighted average	**3.96**	**2.19**	**4.51**	**1.65**	**1.98**	**3.14**	**3.37**	**2.29**	**3.89**
2010 unweighted	**3.43**	**1.76**	**4.09**	**1.96**	**4.48**	**3.48**	**3.42**	**2.69**	**3.78**
2020 unweighted	**4.57**	**2.77**	**4.30**	**1.04**	**-0.22**	**2.39**	**3.31**	**1.95**	**3.98**

Notes and sources: caution should be taken in the use of total and average figures because missing data distorts them for 2020 economies. Indonesian SME figures for 1996 - 2000 and 1990 - 2000 based on estimates. Philippines and Thailand data series were changed substantially and are not comparable. The Russian Federation, Viet Nam and Peru are not included in average calculations for 1990 - 1996, or 1990 - latest. Note that some recent employment figures are based on "best guesses". See notes accompanying tables 2.1.1 and 3.1.1 for sources.

SME estab = gives the simple (non compound) annualised growth in SME establishments or enterprises.

SME emply = gives the (simple, non compound) annualised growth in SME employment.

GDP = annualised simple (non compound) growth in GDP, based on World Bank figures.

Total weighted = annualised growth in total employment or number of SMEs. This differs from the unweighted average growth because it is effectively weighted by the economies for which data are available in that time period.

Weighted E = the same as the total weighted but *excluding* economies for which there were not continuous data series (Chile, Philippines, The Russian Federation, and Viet Nam). Note that these economies are not excluded from the SME establishment figures, which thus tend to overstate the growth of establishments.

Unweighted average = average of the non zero statistics for all APEC economies. Unweighted averages are the averages of the actual percentages in the relevant column, unweighted by the total size (which thus gives relatively less weight to large economies like China and USA and relatively more weight to small economies like Hong Kong China and Chinese Taipei).

2010 - economies seeking to meet 2010 targets (*identified in italics*)

2020 - economies seeking to meet 2020 targets

The definition of an SME is that used by the economy concerned.

A blank entry or 0.00 in a cell indicates data unavailable

Table 4.1.2 Growth rates of employment in SMEs, and in total private sector employment; annual percentage growth

	1990 - 1996			1996 - latest			1990 - latest		
	SME emply	total emply	diff	SME emply	total emply	diff	SME emply	total emply	diff
Australia	4.94	1.04	3.91	2.23	1.69	0.54	4.13	1.29	2.84
Canada	0.16	0.65	-0.48	5.56	2.08	3.48	1.72	1.15	0.57
China	2.90	1.29	1.62	-0.74	0.84	-1.58	1.04	1.16	-0.12
Hong Kong, China	-0.66	2.34	-3.00	-1.19	0.43	-1.62	-0.91	1.73	-2.64
Indonesia	-0.61	2.16	-2.78	0.00	0.77	0.00			
Japan	0.50	0.63	-0.13	-0.97	-0.12	-0.85	-0.06	0.38	-0.44
Korea	-1.46	2.52	-3.98	3.67	-0.86	4.53	-0.07	1.35	-1.42
Mexico	10.64	2.56	8.08	7.65	3.64	4.01	11.18	3.11	8.07
New Zealand	0.25	2.32	0.00	12.62	1.24	11.38	5.60	2.02	3.59
Peru	2.86	0.65	2.21	1.72	5.88	-4.15	2.52	2.47	0.05
Philippines	2.29	3.63	-1.35						
Russian Federation				-15.02	-1.33	-13.68			
Singapore	5.48	2.29	3.19	19.46	2.63	16.83	10.58	2.52	8.05
Chinese Taipei	2.41	1.24	1.16	1.89	1.17	0.73	2.30	1.25	1.05
Thailand							3.62	0.45	3.17
USA	0.97	1.11	-0.14	0.69	1.78	-1.09	0.88	1.37	-0.50
total weighted	**0.59**	**1.07**	**-0.48**	**-0.40**	**0.88**	**-1.28**	**1.67**	**1.03**	**0.64**
total weighted E	**1.51**	**1.35**	**0.16**	**0.22**	**0.98**	**-0.75**	**0.97**	**1.25**	**-0.28**
weighted E 2010	**1.01**	**0.98**	**0.04**	**0.40**	**1.22**	**-0.82**	**0.75**	**1.08**	**-0.33**
weighted E 2020	**1.86**	**1.45**	**0.41**	**0.10**	**0.91**	**-0.81**	**1.12**	**1.29**	**-0.17**
unweighted	**2.19**	**1.75**	**0.45**	**2.68**	**1.42**	**1.27**	**3.27**	**1.56**	**1.71**
unweighted 2010	**1.76**	**1.45**	**0.30**	**5.04**	**1.36**	**3.67**	**3.03**	**1.46**	**1.57**
unweighted 2020	**2.77**	**2.14**	**0.64**	**-0.45**	**1.49**	**-1.94**	**3.66**	**1.71**	**1.95**

Notes and sources: caution should be taken in the use of total and average figures, especially for 2020 economies, because missing data distorts these. Note that Chile, Philippines, The Russian Federation and Viet Nam are excluded from the total weighted E figures. See notes accompanying tables 2.1.1 and 3.1.1 for sources.

SME emply = annualised growth of employment in SMEs. This is simple annualised non compound growth for the period.

Total emply = annualised growth in total employment based on ILO figures. This includes employment in large firms and by the State. This is simple annualised non compound growth for the period.

diff = difference between SME growth and total private sector growth. Where this figure is positive it indicates that SME employment grew faster than total private sector employment over the relevant period.

Growth is annual simple (ie not compound) growth rate between the years indicated in the notes below for the economy concerned.

Total weighted = the weighted growth (simple annual, non compound) of employment in all APEC economies for which data are available, ie the average is weighted by the relative size of the economies as measured by GDP.

Weighted E = the same as the total weighted but *excluding* economies for which there were not continuous data series (Chile, Philippines, the Russian Federation, and Viet Nam)

Unweighted average = average of the non zero statistics for all APEC economies. Unweighted averages are the averages of the actual percentages in the relevant column, unweighted by the total size (which thus gives relatively less weight to large economies like China and USA and relatively more weight to small economies like Hong Kong China and Chinese Taipei).

2010 - economies seeking to meet 2010 targets (*identified in italics*)

2020 - economies seeking to meet 2020 targets

The definition of an SME is that used by the economy concerned.

Entry of 0.00 or blank in a cell indicates data unavailable

4.2 Evidence on the contribution of SMEs to net employment growth

Key Points:

- ***Evidence from economies with reliable data (Australia, Korea, New Zealand) suggest that SMEs contribute 60% to 70% of net new job creation.***

SMEs make a major contribution to economic growth (OECD 2000), and particularly to *net* employment growth. Most of the available evidence suggest that SMEs contribute about 60% to 70% or more of net employment growth in APEC, but data are limited to only a few economies. SMEs make an important contribution to the "Entrepreneurial Engine". This contribution has two main aspects:

1. **Net start ups** - The net addition of new firms generates economic growth. As shown in section 3.3 about 75% to 80% of SMEs in APEC are micro enterprises, and they "churn"; that is, a significant proportion (between about 5% and 20%) "die" each year, while a similar proportion are "born" each year. In APEC as a whole the exit rate seems to be about 7% and the entry rate is about 8% per annum (see section 4.3). If there is a net gain of births over deaths then this tends to add to overall economic growth, as can the expansion of small firms in their own right.

2. **Fast growth SMEs** - It seems to be the sustained growth of a relatively small group of successful (or high growth) firms that contributes a lot to economic growth. (OECD (2000)) These firms typically survive for more than eight years, and often experience growth rates exceeding 30% per annum. It is only a relatively small percentage of SMEs (perhaps 5% or less) that contribute significantly to overall growth in this way, but their contribution can be quite large.

Detailed analysis of the contribution of SMEs to net growth is a difficult statistical exercise, and ideally requires longitudinal studies which track individual SMEs. Only some economies in APEC have made an attempt to analyse the contribution in a systematic way. Establishing what contribution comes from SMEs is subject to some dispute. For example, the most common argument is about the way size classes are used to attribute employment changes. Many firms start as SMEs, but it is distorting to allocate employment growth to the "small" category when a firm starts small, but finishes as "medium" or "large". Much of the dispute on the topic is based on the issue of small versus large. This is really not the issue, but rather the process which is going on between the two, and which firms make the biggest contribution. Some of the dispute (Davis et al 1993) is based on cross sectional analysis which cannot resolve the issue. Much of the job growth comes from firms which start off being small, but contribute most as they become larger. The only way to really assess this is by longitudinal studies, and these are relatively limited in APEC; only Australia, and New Zealand have made any real attempt at this. Some useful analysis is also available from Korea.

Australia

SMEs in Australia have contributed between 63% and 78% of net employment growth. Analysis of the longitudinal GAPS (Growth and Performance Survey) data shows that in 1993/4 78% of job growth came from SMEs, (36% from medium sized firms), and in 1994/5 63% came from SMEs. In later years, the contribution has remained at about 67%.

Table 4.2.a Australia - Contribution to total net employment growth by size of firm

	93/4	94/5	96/97	97/98
micro	4%	20%	na	na
small	37%	14%	57%	50%
medium	36%	28%	11%	17%
SME	**78%**	**63%**	**68%**	**67%**
Large	22%	37%	32%	33%
Growth rate %pa	4.28	3.74	na	na

Source: for 1993/4 and 94/5 preliminary statistics from GAPS, for later period ABS 8141.0 1997-98 p 30.

Korea

Over the last two decades SMEs have generally contributed more to growth than larger firms, reversing the situation prevailing before the 1980s. This reflects a shift in government policy to encourage SMEs, but it also reflects the latent potential of the "entrepreneurial engine" that the policy was aimed at facilitating. From 1990 to 1997, SMEs contributed only 3.4% of the decline in total employment.

Table 4.2.b Korea - Growth rates by firm size - 1960s - 1990s.
(unit : %)

Growth rate (1) Items		1960s (63-69)	1970s (70-79)	1980s (80-89)	1990s (90-97)
No. of establishments	SMEs (2)	3.4	3.1	9.0	4.4
	Large firms	11.8	5.1	1.9	-5.3
No. of employees	SMEs	5.4	10.2	7.3	0.0
	Large firms	12.8	10.8	2.0	-4.7
Gross output	SMEs	14.5	40.4	20.7	15.0
	Large firms	29.7	39.1	14.8	12.6
Value of shipments	SMEs	14.7	40.1	20.8	15.1
	Large firms	29.7	38.9	15.0	12.6
Value added	SMEs	16.3	40.0	21.9	15.1
	Large firms	29.6	35.3	16.4	13.7

Notes and sources: (1) Annual average rate. (2) SMEs are defined as having 5 -299 employees.
From Hong et al (1999) and sourced from Korea Federation of Small Business (KFSB), *Economic Development and Contribution of SMEs*, 1998.

Table 4.2.c Korea - Contribution ratios to economic growth by firm size
(unit : %)

Contribution rate (1) Items		1960s (63-69)	1970s (70-79)	1980s (80-89)	1990s (90-97)
No. of establishments	SMEs (2)	94.0	93.1	99.6	101.6
	Large firms	6.0	6.9	0.4	-1.6
No. of employees	SMEs	38.1	45.3	89.2	-3.4
	Large firms	61.9	54.7	10.8	-96.6
Gross output	SMEs	26.5	32.1	44.6	48.4
	Large firms	73.5	67.9	55.4	51.6
Value of shipments	SMEs	26.7	32.2	44.5	48.4
	Large firms	73.3	67.8	55.5	51.6
Value added	SMEs	25.7	35.5	46.9	47.1
	Large firms	73.3	64.5	53.1	52.9

Notes and sources: (1) The contribution ratio is the percentage share of each enterprise group to total increasing quantity. (2) SMEs are defined a having 5-299 employees.
From Hong et al (1999) and sourced from Korea Federation of Small Business (KFSB), *Economic Development and Contribution of SMEs*, 1998.

New Zealand

SMEs in NZ contributed about 98% of net employment creation in the period 1995 to 1997. Most of this (82.9%) came from firms with less than 5 employees. Of 67,737 net jobs created over the two year period, 66,532 of them came from firms that employed less than 100 employees. It is also interesting to note the "churning" effect. Micro enterprises "created" 156,709 jobs (or 44% of the total jobs created), but "destroyed" 100,561 (or 35% of the total jobs destroyed). About two thirds of the micro business jobs created were from new start ups, but 81% of the micro jobs destroyed are from firms which cease to trade.

In New Zealand (New Zealand (1998)) about 83% of net employment gain between 1995 and 1997 was from micro firms (with less than 5 employees), and firms that were internationally active tended to add more to employment than those that were not.

4.2.d New Zealand - Contributions to employment growth by size class February 1995 to February 1997

	Business Size				
	0 - 5	6- 19	20 - 99	100+	all firms
Employment Creation					
continuing business	53763	29580	29754	52725	165822
new business	102946	42187	24664	19315	189112
total	156709	71767	54418	72040	354934
Employment Reduction					
ceased business	-81460	-40329	-28139	-34716	-184644
continuing business	-19101	-24851	-22469	-36062	-102483
total	-100561	-65180	-50608	-70778	-287127
no change					
continuing business	-15	-73	74	-56	-70
Net employment change	56133	6514	3885	1206	67737
% of total net change	83	10	6	2	100

Source: NZ (2000) Structure and Dynamics of SMEs in NZ p 7.

4.3 Exit and entry rates

Key Points:

- ***For the economies for which data are available, entry and exit rates range widely from 1.5% to about 15%. The APEC average is about 8% entry and 7% exit.***

- ***Bankruptcy rates are about one tenth of the exit rate; 90% of firms exiting from operations do not go bankrupt.***

The turnover and replacement rate (or "turbulence") amongst SMEs is much higher than amongst large firms, and it differs very much between economies. It is a crude guide to the ability of an economy to renew itself and adapt to change; an economy which has a 10% entry and exit rate (as is approximately the case in APEC) can renew itself about every 10 years. An economy such as Japan, with an entry and exit rate below 3% will take over 30 years to achieve the same total renewal. If the entry rate exceeds the exit rate, as is the case in Australia, Chinese Taipei, the Russian Federation and USA, then there is growth in the total number of SMEs. The reverse is the case in Japan, where the exit rate has exceeded the entry rate for the last decade, and so the number of SMEs has shrunk. Exit and entry rates also vary widely within an economy as economic conditions change, and usually exit rates rise as economic conditions deteriorate. Most APEC economies do not provide data on exit and entry. Bankruptcy rates are usually only about one tenth of the exit rate. Most firms exiting the market do not go into bankruptcy.

Table 4.3.1 Entry, exit and bankruptcy rates percentages

	entry rate	exit rate	bankruptcy rate
Australia	10.0	8.0	0.5
Japan	2.7	3.2	0.3
Korea	1.5		0.4
New Zealand	15.0	15.0	
Chinese Taipei	6.6	4.7	
Russian Federation	9.8	2.7	
USA	10.8	9.8	1.1
unweighted average	**8.1**	**7.2**	**0.6**

Notes: caution should be taken in the use of average figures because missing data distorts these.
See notes below for sources, dates and qualifications.
Exit and Entry rates used here are averages across several years for most economies.
Entry rate = new firms in a year as a % of total firms in that year.
Exit rate = firm closures or cessations as a % of total firms.
Bankruptcy = number of bankruptcies in a given year, as a % of total firms in existence in that year.
Unweighted average = average of the non zero statistics for all APEC economies. Unweighted averages are the averages of the actual percentages in the relevant column, unweighted by the total size (which thus gives relatively less weight to large economies like China and USA and relatively more weight to small economies like Hong Kong China and Chinese Taipei).
Most exits, entries and bankruptcies are amongst SMEs. The above figures do NOT distinguish large firms and SMEs.
Entry of 0.00 or blank in a cell indicates data unavailable

Notes to table 4.3.1

	entry rate	exit rate	bankruptcy rate
Australia	approximate only	ABS 8144.0 for 1995/6	ABS 1321.0 1999 p 103 - from 1998/9 Report of the Auditor General data for 1998/9
Japan	JSBRI SME White paper (2000) p 114 average data 1991 to 1996.		1997 data -SME White paper 2000 p 126
Korea	http://www.smba.go.kr/ based on only seven major cities, so understates actual		1996 Hong et al section 2.8. Bankruptcy rates rose steeply post 1996.
New Zealand	NZ (2000)		
Chinese Taipei	1996 data SME White Paper (1998)		
Russian Federation	2000 Russian SME Observatory 2001		
USA	Average 1990 - 1996 SBA table 6.1 http://www.sba.gov/advo/stats/#Firm http://www.sba.gov/advo/stats/data.html		

Australia

Start up rates for SMEs in Australia range between about 9% (BIE Australian Industry Trends, October 1993 p51, 1992 - 93), and 16% (BIE AIT October 1994 p103, 1993 (Registrations only)). Exit rates are about 7% to 10% (ABS Exit Rates 1997 8144.0).

Japan

Exit rates and entry rates for Japan are shown below. Two things stand out clearly. One is that Japan has much lower entry and exit rates than other developed economies; the rates are less than half the rates common in USA or most of Europe. Second, the closure or exit rate has exceeded the start up rate for the last decade, so what growth there has been from Japanese SMEs it has not come from net start ups. Note that Japanese SMEs have still been starting up, but not in Japan; they have been moving business to the rest of East Asia, and particularly to China. This is part of the symptom of Japan's economic malaise that has hindered it since the early 1990s, but it is also part of the internationalisation of the Entrepreneurial Engine in the region.

Table 4.3.a Japan Entry and Exit rates - enterprise data

	75/8	78/81	81/86	86/91	91/96
start up	5.9	5.9	4.3	3.5	2.7
closure	3.8	3.7	4.0	4.0	3.2

Source: MITI (2000) White paper on SMEs

New Zealand

Start up and exit rates were about equal in 1998/9 at about 15% of all enterprises. Prior to 1998, the exit rate was lower than the entry rate.

Chinese Taipei

Start up rates are about 6% to 8%, while exit rates are about 4% to 5%. The number of registered new business start-ups in 1997 totalled about 76,000, relative to about 1.1 million SMEs, while firm closures in that period reached about 50,000. These rates are also fairly low when compared with USA and Europe.

Table 4.3.b Chinese Taipei Business Start-ups and Closures of Registered Firms
Unit: Enterprise, NT$ millions

	Number of Enterprises			Capital volume		
	Start-ups	Closures	Net increase	Start-ups	Closures	Net increase
1996	67,592	48,136	19,456	517,527	176,088	341,439
1997	75,995	50,274	25,721	585,348	173,452	411,896
1998.1	4,967	3,556	1,411	87,959	11,873	76,086
1998.2	4,844	6,025	-1.181	18,635	14,506	4,129
1998.3	7,145	5,252	1,893	41,149	18,608	22,541
1998.4	7,374	4,076	3,298	96,862	16,290	80,572

Source: MOEA White paper on SMEs - Statistics Department, MOEA

USA

USA has had start up rates exceeding exit rates for most of the decade. Bankruptcy rates were proportionally higher in the early part of the decade.

Table 4.3.c USA start up, exit and bankruptcy rates - all firms

	start up	exit	bankruptcy
1996	10.9125	9.35374	0.97115
1995	11.0702	9.26131	0.94087
1994	10.8128	9.54267	0.96353
1993	10.8691	9.48566	1.20145
1992	10.6881	10.2369	1.37082
1991	10.7135	10.8199	1.39784
average	10.8	9.8	1.1

Source: www.sba.gov/advo/stats

5. SMEs and international activity; trade and FDI

Key Points:

- ***Exports from APEC economies have grown from 35% of world exports in 1990, to 47% of world exports in 1999.***

- ***SMEs contribute about 30% or less of total exports and about 10% or less of FDI.***

One of the major objectives of APEC is to enhance the positive gains arising from increasing economic interdependence, by encouraging export growth in a multilateral trading system with reduced trade barriers. The growth in APEC exports (table 5.0.1) was around 16% per annum up until the 1996 Asian crisis, and was generally above world export growth throughout the decade from 1990 to 1999. Based on UNCTAD figures, in the nine years from 1990 to 1999, APEC exports rose by 217% while total world exports rose by 161%. As a result APEC has grown so that it now comprises 47% of all world exports, up from 35% in 1990.

Table 5.0.1 Total exports from APEC 1990 - 1999
$ million USD

	1990	1994	1995	1996	1997	1998	1999
Australia	39725	47528	53111	60301	62901	55983	56082
Brunei Darussalam	2213	2234	2389	2474	2442	2307	2700
Canada	12769	165376	192197	201633	214422	214327	238446
Chile	8373	11604	16024	15405	16663	14830	15616
China	62091	121047	148797	151197	182877	183589	195150
Hong Kong, China	82160	151399	173750	180750	188059	174002	173885
Indonesia	25675	40055	45417	49814	53443	48847	48665
Japan	287581	397005	443116	410901	420957	387927	419367
Korea	65016	96013	125058	129715	136164	132313	144745
Malaysia	29452	58844	73914	78327	78740	73304	84455
Mexico	40711	60882	79542	96000	110431	117460	136703
New Zealand	9394	12185	13645	14422	14076	12070	12452
PNG	1177	2632	2654	2529	2163	1775	1877
Peru	3231	4555	5575	5897	6841	5735	6114
Philippines	8842	12594	17684	20537	28076	33167	35763
Russian Federation		67542	81096	88599	88298	74208	74142
Singapore	46642	82632	108952	124121	125265	118532	107215
Chinese Taipei	67079	92876	111563	115730	121081	110518	121528
Thailand	23068	45261	56439	55721	57388	54456	58392
USA	393592	512627	584743	625073	688696	682497	695214
Viet Nam	2404	4054	5449	7256	9185	9361	11850
total APEC	**1213185**	**1990939**	**2343110**	**2438398**	**2610165**	**2509206**	**2642360**
% annual growth from previous		**16.02**	**17.68**	**4.06**	**7.04**	**-3.86**	**5.30**
World exports	**3481497**	**4278564**	**5120452**	**5297789**	**5547414**	**5464755**	**5620665**
% annual growth from previous		**5.72**	**19.67**	**3.46**	**4.71**	**-1.49**	**2.85**
APEC as % of world	**34.84**	**46.53**	**45.75**	**46.02**	**47.05**	**45.91**	**47.01**

Source: UNCTAD (2000) Handbook of Statistics tables 1.1 and 1.2

This "rising tide" should have benefited APEC's SMEs, but SMEs make a smaller than proportionate contribution to international activity in APEC. SMEs make up more than half of most national economies, in terms of employment, and about half when it comes to output, sales or value added. In terms of exports, SMEs contribute less than proportionally, and even less when it comes to Foreign

Direct Investment or FDI. SMEs in APEC have probably not benefited as much as they could from the rising tide of internationalisation. There are still impediments to accessing international markets and size helps to overcome these, especially when it comes to getting government support in trade negotiations. Smaller firms seem to have missed out on the international benefits offered by APEC. The steady structural shift to services in SMEs (see section 3.5) should be of benefit for SMEs, but APEC has been slow to identify and act on impediments to the trade of services, especially those by SMEs.

5.1 SME contribution to exports

Key Points:

- ***On the basis of available information, SMEs contribute less than 30% of direct exports. On a weighted basis, SMEs contribute about 28% of all APEC exports. SMEs are thus under represented in the international economy relative to their role in the domestic economy. This suggests that SMEs in APEC have been less able to take advantage of the opportunities opened up by APEC.***

- ***There is insufficient trend data available to say if the role of SMEs in exports is increasing or decreasing, but limited available evidence suggests it is not increasing.***

- ***It should be relatively easy and inexpensive to improve data on SME exports, but APEC has not sought to address this issue.***

Table 5.1.1 brings together information from diverse sources on the contribution of SMEs to exports in APEC. As noted below, considerable caution needs to be taken in interpreting this information. However, it is clear that SMEs are under represented in the APEC international economy. In the domestic economies, SMEs generally make up about 50% of GDP, and about 60% of private sector jobs. By contrast, SMEs contribute only about 30%, of exports on average. If this is taken on a weighted basis, the contribution falls to only 28.2%. That is, using the "best guess" percentages of exports, which in turn are based on the latest available official figures, and weighting the exports in each of the economies for which there are data, then for those 10 economies shown in table 5.1.1 of the total exports of about $USD 1,940,285 million in 1999, we might expect only 28.24%, or about $USD 547,927 million to come from SMEs. In section 5.3, there is discussion as to the potential for increasing this contribution.

Table 5.1.1 Exports by SMEs as a percentage of total exports

	1990	1996	latest	best guess
Australia		49	51	50
Chile	6	5	4	5
China	50	60		60
Indonesia		5		5
Japan		15		15
Korea	42	42	40	43
Mexico		21		21
Singapore	8		8	8
Chinese Taipei			24	24
USA	29	30		30
total weighted				**28.24**
unweighted average				**26.06**
uwa 2010				**22.00**
uwa 2020				**32.15**

Notes and sources: caution should be taken in the use of total and average figures because missing data distorts these.
See notes below for sources and dates. Where not specifically mentioned, data is drawn from KOTRA (1999), or APEC (1994).
total weighted = is a weighted average percentage of SME exports; that is it is weighted by the amount of exports in each of the economies for which data are available.
Best guess = a best estimate based on available information of the approximate percentage of exports attributable to SMEs.
UWA Unweighted average = average of the non zero statistics for all APEC economies for which there are data. Unweighted averages are the averages of the actual percentages in the relevant column, unweighted by the total size (which thus gives relatively less weight to large economies like China and USA and relatively more weight to small economies like Hong Kong China and Chinese Taipei).
2010 - economies seeking to meet 2010 targets (*identified in italics*)
2020 - economies seeking to meet 2020 targets
The definition of an SME is that used by the economy concerned unless noted.
Entry of 0.00 or blank in a cell indicates data unavailable

Note that the figure for PRC China (60%) cannot be verified and may be excessive. Chinese Taipei used to quote a figure of in excess of 50% of exports for SMEs, but changed the method of assessing SME exports in the late 1990s - see text below for explanation.

Notes to table 5.1.1

	1990	1996	latest
Australia		1994/5 ABS 8154.0 p11 SME is defined as employing less than 200.	1997/8
Chile	1994		1997 IADB Profile p6
China	1992 - APEC Survey on SMEs		
Korea	1994	KOTRA (1999) p 23	2001 - http://www.smba.go.kr/english
Singapore		Manufacturing only - Census of Industrial Production. SME is less than 100 employees, but more than 10. Because most Singapore exports are re-exports this figure overestimates the effect of SMEs. Note that the Kotra (1999) figure of 15.4% SME exports includes some double counting.	
Chinese Taipei		1998 White Paper 2000 p 274.	
USA		1997 USA Department of Commerce (1999), SME Exporting Companies a statistical profile	

Considerable caution needs to be exercised in interpreting SME export and FDI figures. Only Chinese Taipei and Korea keep reliable figures, and even then there are sometimes problems. Statistics which break exports and FDI down by size of firm are difficult to get in most economies. For example:

Japan, does not directly measure the proportion of SME exports, but instead estimates the figure based on the proportion of SME shipments (that is, goods leaving the factory gate) in an industry relative to industry total; if 70% of shipments in value terms are from SMEs then all the exports of that industry are allocated to SMEs.

Chinese Taipei is often quoted as having a figure of between 70% and 50% of SME exports, but the series that gave these figures was dropped in 1999 and is no longer available. Based on value added tax data, the contribution of Chinese Taipei SMEs to total direct exports is close to 28%, in line with USA and other economies. The previous series was based on estimates of the value of SME exports by deducting large firm exports from the total export figure; there was no data actually collected from SMEs.

In Australia, longitudinal survey data shows that SMEs (defined as employing less than 200 employees) contribute about 50% of exports, but 36% of exports is attributable to firms which employ between 20 and 199 people, thus most SME exports are from medium sized firms, and only 14% of exports come from small or micro firms. Australia usually defines small business as employing less than 20 people.

Usually SME export figures are based on direct exports. In the manufacturing industry SMEs often make up a significant part of the value chain, or supply chain, and may thus not be included in the direct exports. Assessing their indirect contribution is rather difficult, and no economies provide estimates of this. In comparing equals with equals though, it should be noted that domestically SMEs make up a significant part of the supply chain as well, and they still contribute 50% of GDP or value added.

As pointed out in Hall (1998) it should be relatively easy and inexpensive to improve data on SME exports. Most APEC economies already have, or are moving to, a business register. This means that each firm can have a unique identifier. Once a firm has a unique identifier, it should not be necessary for it to have to supply any other demographic data on government forms anywhere in APEC. For example, instead of having to fill in a mass of detail on customs forms or on tax records, it should just

be able to supply its identifier number. Once a year it could be asked to update the register information (such as name, registered address, number of employees, and perhaps some other economic information). For the vast majority of SMEs engaged in international trade, this could be done electronically with very little inconvenience or cost. To achieve this would require some cooperation in having agreed codes, and in providing reciprocal access to data bases. This might involve some security which restricts access to open register information (name and address, but not restricted or confidential information). The concept of single number access and compliance reporting is already being tested and used in some member economies to reduce paperwork.

Once this sort of approach is working it becomes relatively simple to link information. Four examples of how this might be done follow:

1. *Contribution of SMEs to growth of GDP.* Many APEC economies use a value added tax or some equivalent. Usually this requires regular lodging of returns (monthly, quarterly), and increasingly this is done electronically. A link between business register information and VAT information would in most cases simplify the document lodgment for the firms, and it would allow monitoring of value added by size of firm. This is important because it would give policy makers a much better idea of the "health" of their SME sectors at a quarterly or monthly level, and throughout the business cycle. Being able to monitor this and make comparisons of the contribution of SMEs to total value added is becoming more important in a more volatile global business environment.

2. *Export volume by SMEs.* In most economies, goods sold abroad are exempt from VAT. It thus becomes possible to monitor gross exports by size of firm, something which is difficult to do at present. This would not allow any monitoring of destinations of exports.

3. *SME exports and their destination.* The blueprint for APEC customs procedures in APEC points to a simpler and more electronic process by 2005. Once this is in place, an exporter will only have to quote a registration number once on each transaction (instead of supplying the same information about the firm up to as many as 60 times on different forms). This will not only make it a lot simpler for SMEs to export, but it will also allow tracking of SME exports, something which is impossible to do now, so long as a link exists between the business register data and the customs data. It would also allow tracking of the type of SME exports and the destination of them.

4. *Electronic commerce.* The emergence of electronic commerce, especially in conjunction with web based sales supported by post and courier, will have far reaching consequences for SMEs and their ability to penetrate international markets. At present it is not at all clear how the regulatory and reporting regime for electronic commerce will evolve. However, it seems likely that for tax purposes, all E-commerce transactions will need to be reported in some way, and in a way that links them to an identifiable entity. This offers the potential to track the participation of SMEs in E-commerce, and their role in international E-commerce.

5.2 SME contribution to FDI

Key Points:

- ***SME FDI makes up about 50% of cases but less than 10% by value.***

SME Foreign Direct Investment is even harder to gauge than exports. FDI by SMEs is probably about 50% or more of cases of FDI, but only about 10% to 5% or less of actual value. In principle, FDI can be monitored when it is received (for examples, by approvals for incoming investment), or when it is made (such as approvals for money to be sent out of an economy). No economies monitor incoming investment flows to see what size of firm they are coming from and going to, and even if they did, it would be hard to interpret. For example, if the FDI is coming from an SME to an SME it is clearly SME investment, but it can also be coming from a major MNC and going to an SME. Estimates made by the author for UNCTAD are summarised in tables 5.2.a and 5.2.b. Table 5.2.a is an approximation, by measuring "small package" approvals - that is, approvals for investments of less than $USD 1 million are *assumed* to be indicative of investments in SMEs.

Table 5.2.a Trends in inward small package FDI in developing economies in Asia 1989 -1995 $US m current and as a percentage of total approvals

	1989	1990	1991	1992	1993	1994	1995
Philippines							
$ "SME" FDI							
% $ approvals	17%	8%	8%	11%	7%	2%	2%
% cases	86%	83%	80%	85%	73%	62%	63%
Viet Nam							
$ "SME" FDI			12	13	24	28	29
% $ approvals	%	%	0.9%	0.6%	0.8%	0.6%	0.4%
% cases	%	%	18%	15%	22%	14%	13%

Source: adapted from UNCTAD (1998)
Philippines: figures are based on approvals for projects of less than Peso 60 million (about $US 2,000,000 at the time).
Viet Nam: Figures are estimates based on published information on smaller projects, and probably underestimate slightly the role of SME FDI. FDI figures used are the official approvals.

Korea actually identifies outward FDI by size of firm. These data show that FDI by SMEs amounts to about 20% by value (though this dropped off abruptly in the aftermath of the 1997 Asian crisis), and about 67% to 54% of cases. SME FDI over the period from 1993 to 1998 has grown, or shrunk, at about the same rate as total FDI. The average amount of investment by Korean SMEs abroad was about $USD 600,000 in 1995.

Table 5.2.b Republic of Korea - total outward FDI and SME FDI $US million

	1993	1994	1995	1996	1997	1998
Value of FDI						
Total	5,411	7,477	10,225			
SMEs	1,026	1,519	2,054			
% $ SMEs	19%	20%	20%	21%	18%	8%
Cases of FDI						
Total	2,726	4,133	5,326			
SMEs	1,603	2,722	3,593			
% SMEs	60%	66%	67%	55%	57%	54%

Source: UNCTAD and national statistical sources. KOTRA (1999) for figures post 1995.

Japan also collects some information on the number of cases of SME investment abroad. The Ministry of Finance collects information based on notifications, and MITI collects additional information on SME FDI based on survey data. The figures are not directly comparable; there are numerous discontinuities in the series, and the figures do not include the value of that investment. However it seems that SMEs make up about 50% of cases of FDI. The proportion rose as high as 60% in 1988 when the Yen was rising steeply, then dropped back to around 40% in 1992 and in 1996 had risen again to about 52% (JSBRI (1997) p36). It has continued to decline since then, and in 1998 SME FDI

cases had dropped to only 57, or only 11% of the total recorded cases of FDI abroad. About 13% of Japan's manufacturing output was produced abroad in 1997 although the proportion attributable to SMEs is not known (JSBRI (1999) p 8).

5.3 International SME dynamics and growth potential

Key Points:

- ***Available evidence suggests that there is the potential for SMEs to add about $1 trillion in trade and about $150 billion in FDI per annum to the APEC economy if structural changes allow a simpler, more business friendly, more integrated APEC economy to emerge.***

The potential for fast growing internationalised SMEs to add to the APEC economy is quite large. Estimates below suggest that greater structural integration of APEC economies (offered by E-commerce and a reduction of tariff and non tariff barriers) will allow SMEs to increase their contribution to the APEC economy *relative* to larger firms, and bring it more in line with that typically found in the more integrated national economies. Available evidence suggests that there is the potential for SMEs to add about $1 trillion in trade and about $150 billion in FDI per annum to the APEC economy if structural changes allow a simpler, more business friendly, more integrated APEC economy to emerge.

How much SME trade and investment *could* there be in APEC? This question is impossible to answer except in some very broad brush terms. Two aspects need to be distinguished:

- The first is growth of international activity by SMEs as a result of economic growth. UNCTAD evidence generally suggests that, as a rough proxy, trade grows at about double the rate of GDP growth, and FDI grows at about double the rate of trade. Other things equal, and even if SMEs remain relatively under-represented in international activity, we can expect the growth of SME trade and investment to outstrip GDP growth. This will necessarily mean that internationalised SMEs will contribute proportionally more to national economic growth. This is the "rising tide" effect. As APEC reduces trade and non trade impediments, all enterprises, large and small will benefit and rise on the rising tide.

- The second is a structural change in the relative importance of SMEs versus larger firms in international activity. The potential for gains here is much larger. SMEs make up only about 30% of trade and about 10% of FDI, whereas they have the potential to contribute nearly 50% of each if the international economy becomes more integrated.

Table 5.0.1 suggests that trade in APEC was about $3 trillion per year in 2001. If GDP in APEC grows at about 4% per annum, then growth in trade can be expected to be about 8% pa, and SMEs should add about 30% of this, or about $80 billion per year. In fact, since 1990 exports from APEC have actually grown at a simple annual rate of about 24% pa, so the 8% assumed is quite conservative.

Table 5.3.1 shows FDI flows in APEC. SMEs probably make up only about 10% of these (or about $20 billion). If GDP in APEC grows at 4% then FDI is likely to grow at about 16%, so the growth of SME contributions to FDI is likely to be about $3.2 billion pa.

How much *could* SMEs contribute to trade under ideal conditions? In a fully integrated economy SMEs typically make up about 50% of economic activity; that is SMEs contribute about 50% of GDP and about 50% of investment. At present SMEs seem to make up only about 30% or so of trade in APEC. If APEC exports are expected to be about $3 trillion in 2001, then SMEs would make up only $1 trillion of the total (or about 30%). This is probably an exaggeration, since section 5.1 shows that 30% is a rather high estimate. The actual direct contribution of SMEs to exports is likely to be smaller, around 28%. If SMEs were to realise their full potential, then they should contribute roughly the same as larger firms (that is about 50%, or about what they contribute in a fully integrated economy), or about $2 trillion, equal to the $2 trillion contributed at present by large firms. This implies that if SMEs reach their full economic potential, SME exports would double, from $1 trillion to $2 trillion, and total export trade in APEC would expand by 30%, from $3 trillion to $4 trillion. To put this in perspective, an extra $1 trillion in trade each year is more than the combined economies of Canada and Australia, and about double the equivalent of all of ASEAN. It would be a significant addition to the APEC economy.

How much *could* SMEs contribute to increased FDI in APEC under ideal conditions? SMEs typically make up about half of all investment in an economy, but across borders it is much less; SME FDI

usually only makes up about 10% of FDI. Table 5.3.1 above shows that in 1996, FDI flows in APEC amounted to about $189 billion in inflows and $166 billion in outflows. About 90% of this $166 billion in outflows is probably attributable to large firms ($149 billion), and only 10%, or about $16 to $20 billion in outflows, is attributable to SMEs. In a more integrated world, SMEs would be contributing about as much as the large firms. This would suggest that the potential is there for SMEs to increase FDI in APEC by about $130 to 150 billion per year. To put this in rough perspective, $150 billion is about the same as the GDP of Hong Kong China, or Indonesia. In itself it would be a significant addition to the APEC economy, but FDI has strong multiplier and technology transfer benefits as well.

Table 5.3.1 FDI flows in APEC 1996

	FDI inflows 1996 $m	FDI outflows 1996 $m
Australia	6403	1343
Brunei Darussalem	9	0
Canada	6681	7543
Chile	3140	956
China	42300	2200
Hong Kong China	2500	27000
Indonesia	7960	512
Japan	220	23440
Korea	2308	4188
Malaysia	5300	1906
Mexico	7535	553
New Zealand	2928	-157
PNG	230	0
Philippines	1408	182
Singapore	9440	4800
Chinese Taipei	1402	3096
Thailand	2426	1740
USA	84629	84902
Viet Nam	2156	1740
Total	**188975**	**165944**

Source: UNCTAD World Investment Report 1997 table B

In summary, we should expect that if commitments to reduced trade and investment barriers are maintained, and SMEs simply continue to "rise with the rising tide of trade liberalisation" then we can expect SMEs to add:

- about $80 billion a year to trade in APEC; and
- about $3.2 billion a year in FDI.

Similarly, were the APEC economies to achieve a level of integration where SMEs can move as easily across borders as large firms (in effect achieving an almost borderless economy) it would be possible for SMEs to add as much as about:

- $1 trillion each year in additional economic trade; and
- $150 billion each year in additional investment.

Clearly the main gains will come from a structural shift which would enable SMEs to operate in a more integrated APEC economy. How realistic is this? On the one hand, it is unlikely that APEC will become a fully integrated economy in the next 20 years, at least in the sense of the moves of the European Union to full monetary and political union. The target might thus be discounted to reflect the political reality that even with the best will in the world, and even by 2020, economic union in APEC will be a long way off. Even so, even if the figures above are halved, they still reflect a very large potential gain which at present is being almost ignored. On the other hand, the rapid changes brought forth by E commerce and globalisation mean that the potential for SMEs to contribute to the growth of the global or regional economy is greater than ever before. It would be particularly shortsighted to ignore this potential, and to not address any impediments that can be identified. The potential gains tend to be largest in Asia, simply because there are more SMEs there, and the Entrepreneurial Engine there is underpowered.

6. Progress in APEC SME policy areas

Key points:

- ***APEC lacks effective indicators to monitor progress in making improvements in key policy areas of importance to SMEs.***

- ***Of the 21 APEC economies, seven carry out regular surveys and statistical updates on SMEs. These seven cover about half the SMEs in APEC. It would be relatively simple to coordinate some of these regular surveys to get better agreement and comparability on some key indicators.***

- ***Where indicators are available (information access and the internet, finance and women) they do not show a lot of progress.***

This section seeks to examine available evidence of progress in the areas that APEC nominates as of policy importance with regard to SMEs. It also seeks to suggest ways that better monitoring of progress could be achieved. APEC does not usually set specific targets or goals. There are the broad goals of Bogor which commit APEC economies to open trade and investment regimes by 2010 and 2020, and the specific IAPs (Individual Action Plans) that support these broad goals. At a general level there are three broad policy areas where APEC can contribute to SME development:

1. *Reduce barriers to trade and investment.* Most of this is covered by TILF activity in APEC, which to date has focussed on tariffs and investment guidelines. These do have an effect on SMEs, but from a policy point of view it is probably more important to identify (and act on) non tariff impediments that affect SMEs, and to provide SMEs with access to information.

2. *Support SMEs in their efforts to become more internationally competitive.* The APEC Ecotech Agenda has a number of initiatives focussing on SMEs. Within the SME WG the main emphasis has been on improving management capability, providing access to technology and technology transfer, and on finance (such as credit guarantee initiatives).

3. *Build a better business environment.* Within APEC, improving the business environment (for example, by seeking to harmonise regulations) has been largely the responsibility of working groups such as E-commerce, Fisheries, Tourism, Trade Policy etc. SMEs are a cross cutting issue in this context. Within the SME WG this is mostly a matter of capacity building to obtain the full benefit from SMEs and entrepreneurs, usually by encouraging them to be more competitive, and covers the broad gamut of all policies.

At a more specific SME level, since its inception, the APEC SME PLG and WG has distinguished five areas where governments can make a positive contribution to the development of SMEs, and where there are, prima facie, market failures which work to the detriment of SMEs. Two additional areas are also now commonly referred to in some APEC meetings. Finally, Mexico, at the meetings in 2002, addressed an overarching "general SME policy environment" area. These eight areas are:

1. Information access (and especially the internet, computer use, and E commerce);
2. Finance;
3. Technology and technology transfer *;
4. HRD and training *;
5. Market access *;
6. Role of Women and policies to promote women and ethnic minority business;
7. Administrative burden imposed on SMEs by government regulation *;
8. General SME Policy and business environment *.

Is there any reliable evidence that there have been improvements in any of these areas? To answer this question requires indicators which allow comparison across time and across economies. APEC has generally put a rather low priority on developing such indicators as they relate to SMEs. The following sections attempt to collate available indicator data on these areas, and wherever possible, to present it in a summarised and roughly comparable form. Unfortunately it is often difficult to obtain

meaningful indicator data, especially for those areas with an asterisk (*). Relevant descriptive information and non-comparable data are presented by economy, where this is available. What evidence there is patchy. For example, in the three areas where there are some roughly comparable and continuous indicator series:

- There is some progress in narrowing the digital divide, but it is still a very wide divide;
- The only available and comparable evidence on finance for SMEs is that they have tended to lose out over the last decade, at least when it comes to access to bank loans; and
- The proportion of women managers appears to be stuck at around 30%.

This suggests that APEC has not made much tangible, measurable improvement in the areas that it nominates as of importance to SMEs in the course of the first APEC decade.

Is it possible to improve and get better and more comparable indicators of progress in SME areas? This is really a question of cost and budget. Most SME agencies are primarily oriented to providing services to their client base of SMEs, and are understandably disinclined to devote scarce resources to collecting statistics.

However, of the 21 APEC economies, seven already carry out and publish some form of systematic review of their SMEs each year or so. These economies are Australia, Japan, Korea, New Zealand, the Russian Federation (as of 2001), Chinese Taipei, and USA. Together these economies have about half the SMEs in APEC, so they already provide quite reasonable coverage. Table 6.0.1 summarises the information that they already collect. The indicators identified here are generally are:

a) available over several years in a series, and can be updated each year;
b) relevant in some fairly direct way to the APEC key policy areas;
c) such as to allow some comparability between economies.

The point is that if we can encourage some more commonality on some of these indicators, then it may be possible to better track progress in meeting SPAN APEC SME priorities, with very little additional cost or effort. To this end table 6.0.2 summarises what SPAN and APEC seems to be seeking to do in each of the priority areas, and then suggests possible indicators which could be used to track progress in each area.

Table 6.0.1 Available indicators in APEC economies

	Australia	Japan	Korea	New Zealand	Chinese Taipei	USA
Source	ABS 1321.0 - Small Business in Australia ABS 8127.0 - Characteristics of small Business (survey every two years)	METI SME White Paper annual	SMBA website summary statistics annual	Ministry of Economic Development SMEs in NZ annual	SMBA White Paper on SMEs annual	SBA Summary Statistics annual The State of Small Business - Report of the President periodic
Information access	> Number of business with internet access or computers (1321)					
Finance	> Sources of funds used [own, bank] (8127) >Proportion of Bank loans to small loans (RBA)	> Rate of growth of lending to SMEs by type of financial institution > Bank lending to SMEs (BoJ) > Bankrupt-cies in SMEs >Profitability to sales ratio by size > Financing pattern (debt, equity) etc for SMEs > Main financial ratios by size	> Investment by size of firm >Sources of funds for investment on plant and equipment - debt (from banks, non banks, etc) and equity going to SMEs >Profitability, and financial ratios by size of firm (quick ratio etc)	> Births and deaths of firms > Profit per full time employee, by size of firm > Sales by size of firm	>Balance sheet and P&L for SMEs > Financial ratios (quick, net worth) > Percentage of bank loans to SMEs > Profitability of domestic and abroad operations	> Exit and entry and bankruptcy rates
Technology		> R&D spending by size of firm > Number of Researchers by size of firm > Problems encountered in R&D by size > Productivity indices, Value added productivity by size	> R&D per spending per SME, and as a ratio of sales per SME			

Table 6.0.1 Continued

	Australia	Japan	Korea	New Zealand	Chinese Taipei	USA
HRD	> Small business with management trained operator (8127) > Proportion of business offering training (1321)				> Education level of employed persons in, and of owners of SMEs > Skills required by SMEs for future development	
Market access		> Trends in overseas investments by manufac by size > Cases of investments abroad by size of firm and region	>Proportion by value of exports by SMEs and large firms > Investment (cases and value) in foreign economies by size		> SME export by industry > Problems faced by SMEs investing abroad > Reasons for investing abroad	> (irregular) SME contribution to exports > SME access to contracts (Federal)
Women	> Proportion and number of businesses with female or male operator (manager) (ABS 8127)		> Proportion of women owned enterprises by size, and by industry	> Proportion by gender and employment (self employed)	> Proportion of women business owners	> Proportion of women owned businesses

Table 6.0.2 Possible indicators for use in monitoring SPAN progress

what APEC seeks for SMEs	available/possible indicators
Policy Environment • More conducive policy and business environment for SMEs to do business in	• SMEs per person (entrepreneur density ratio) • Net start up rates • Sentiment and conditions surveys (eg Tankan) • Structural comparison (eg World Competitiveness) • Cyclical comparison (SME sentiment, expectations)
Information access • Reductions in the digital divide • Improved and lower cost access to information	• Number of internet users • Number of PCs • Number mobile phones • Penetration of technology (eg broadband) • Cost of access (eg 3 minute call)
Finance • More efficient finance markets which provide SMEs with more access to finance (debt and equity) at costs commensurate with risk	• Small business loans as a proportion of total loans • Start up rate • Exit and bankruptcy rates • VC funds raised/invested • Key ratios (quick ratio etc)
Technology and innovation • Improved productivity of SMEs • Increased adoption of appropriate technology • Increased innovation	• Productivity level and change by size of firm • Patent filings by size of firm • Penetration rates of new general technology
HRD and Training • Increased levels of training of managers of SMEs • improved productivity of SMEs	• Productivity - change in output person • Education levels of managers • Expenditure on training and HRD
Market Access • Reduced tariff and non tariff barriers facing SMEs • Increased international trade and investment by SMEs	• SME exports • SME FDI • Surveys of impediments faced by SMEs
Administrative burden • Reduced administrative burden	• Time spent meeting regulatory requirements by SME managers
Women and minorities • Increased participation by women in SMEs	• Sex and minority disaggregated data on other indicators as appropriate

6.1 Information access and the digital divide

Key Points:
The digital divide in APEC is still quite distinct:

- ***In 1999/2000 98% of the internet hosts in APEC, 82% of the PCs, 74% of the internet users, and 66% of the fixed lines were in 2010 economies. The 2010 economies have about 20% of APEC's human population, and about 33% of APEC's SMEs;***

- ***The number of internet hosts (servers) per SME in APEC was 0.5 in 1997/8, but it was only 0.06 in 2020 economies, and 1.1 in the 2010 economies, so the 2010 economies had 17.5 times as many servers per SME as the 2020 economies did;***

- ***There were about 6 internet users per SME in APEC in 2000, but there were 9.4 internet users per SME in 2010 economies, and only 3.5 per SME in 2020 economies;***

- ***The number of PCs per SME in APEC was 6.6 (in contrast with an average number of employees per SME at about 6; see table 2.4.1) but it was only 3.0 in 2020 economies, relative to 11.0 in 2010 economies;***

- ***The number of fixed lines per SME was 11.7 in APEC, 9.1 in 2020 economies and 15.0 in 2010 economies.***

The "digital divide" has been the main focus of efforts to improve information access in APEC, on the grounds that the rapid expansion of the world wide web and the internet has made it possible for SMEs to compete much more effectively, and to participate much more in the international economy. Information access is not only via the internet, but the internet is an increasingly cost efficient way for most SMEs to obtain information, and for governments and others to disseminate it. Actual figures on SME usage of computers and the internet are difficult to obtain, and only some economies have carried out the surveys required. This makes it difficult to make comparisons across economies. The figures in the following tables are based on ITU (International Telecommunication Union) estimates and are sourced from the World Bank. They do not specifically relate to SMEs, but rather are based on estimates for the economy as a whole. In table 6.1.1 the figure for the economy as a whole is expressed as a ratio based on the number of SMEs in the economy, as set out in table 2.1.1. This is an arbitrary statistic, but given that most computers and internet users in 2020 economies are likely to be business users, it gives a better indication of the real extent of the digital divide.

The evidence from tables 6.1.1, and 6.1.2 suggest that as at the year 2000 (the latest for which data are available), the digital divide is still quite pronounced in APEC, but it is also shrinking. This is illustrated by the digital divide ratio which shows that there the number of internet users per SME in the 2010 economies is 2.5 times that in the 2020 economies. So for example, while there are about 6.1 internet users per SME in APEC as a whole, there are 9.2 for every SME in 2010 economies and 3.6 in the 2020 economies, (that is, there are 2.5 times as many internet users for every SME in 2010 economies relative to the number in 2020 economies). This is comparable to the digital divide ratio for PCs per SME (3.5 times), but is much less marked than the digital divide expressed in terms of the number of servers per SME where the digital divide ratio indicates 2010 economies had 16.7 times the number of servers per SME than the 2020 economies. The 2020 economies had less than 2% of servers, according to World Bank ITU estimates.

Table 6.1.3 shows that the growth rates differ, and that the 2020 economies are catching up. The growth of internet users in 2020 economies is about 800% per annum over the four years up to 2000, nearly four times that in 2010 economies. This estimate excludes the distorting effect of Viet Nam, which has an extremely high growth rate of 50,000% off a very low base, rising to about 200,000 users in 2000.

Table 6.1.1 The number of internet hosts, internet users, PCs and fixed lines in APEC economies, per SME basis

	internet user/SME 1999	servers/SME 1999	PCs/SME 2000	fixed line/SME 1997
Australia	5.9	0.7	7.7	8.4
Brunei Darussalam	6.0	0.2	4.3	15.4
Canada	13.7	1.2	12.7	20.2
Chile	5.1	0.1	2.4	0.0
China	2.8	0.0	2.4	8.6
Hong Kong, China	8.9	0.3	7.8	12.5
Indonesia	0.1	0.0	0.1	0.3
Japan	7.7	0.3	6.5	10.3
Korea	7.1	0.1	4.1	7.6
Malaysia	3.1	0.0	1.3	3.5
Mexico	1.0	0.0	1.7	3.2
New Zealand	4.3	0.7	7.1	9.5
PNG	0.0	0.0	0.0	0.0
Peru	5.4	0.0	2.2	3.6
Philippines	2.4	0.0	1.7	2.6
Russian Federation	3.6	0.2	7.4	33.3
Singapore	22.2	1.2	27.8	31.2
Chinese Taipei	0.0	0.3	0.0	10.3
Thailand	6.6	0.1	4.2	13.9
USA	16.7	5.3	27.5	30.2
Viet Nam	1.0	0.0	3.3	7.8
unweighted average	**6.1**	**0.5**	**6.6**	**11.7**
uwa 2010	**9.2**	**1.05**	**11.0**	**15.0**
uwa 2020	**3.6**	**0.06**	**3.0**	**9.1**
digital divide ratio	**2.5**	**16.7**	**3.6**	**1.6**

Notes and sources: Data on internet hosts, internet users PCs and fixed lines are derived from World Bank figures for 1997 1998, 1999 or 2000 (latest available). Some figures are not available for Chinese Taipei.
SME numbers are based on best guess for 2000 or other relevant years in table 2.1
Note that figures for ratios of servers (internet hosts), PCs and fixed lines per SME are simple statistics based on total SMEs relative to approximate totals of each of the other variables. They do NOT purport to show that SMEs actually do have this number of fixed lines or Internet hosts or computers on average, and they almost certainly overstate the number that SMEs actually do have.
Unweighted average (uwa) = average of the non zero statistics for all APEC economies. Unweighted averages are the averages of the actual percentages in the relevant column, and are not weighted by the total size (which thus gives relatively less weight to large economies like China and USA and relatively more weight to small economies like Hong Kong China and Chinese Taipei).
2010 - economies seeking to meet 2010 targets (*identified in italics*)
2020 - economies seeking to meet 2020 targets
Entry of 0.00 or blank in a cell indicates data unavailable
The digital divide ratio = the value for 2010 economies divided by the value for 2020 economies.

Table 6.1.2 The number of internet hosts, internet users, PCs and fixed lines in APEC economies absolute numbers

	internet users 2000	Servers in 1999	PCs in 2000	Fixed line in 1997
Australia	6600000	773089	8609689	9350051
Brunei Darussalam	30000	1145	21582	77053
Canada	12700000	1097502	11711493	18641333
Chile	2537310	29302	1203683	2692934
China	22500000	17181	19512162	68967516
Hong Kong, China	2601300	78258	2279341	3646452
Indonesia	2000000	15029	1983861	4957649
Japan	47080000	1681171	39738840	63433860
Korea	19040000	182998	10943558	20421844
Malaysia	3700000	45652	2234734	4222465
Mexico	2712380	108988	4767755	9139532
New Zealand	830000	135042	1354899	1826578
Peru	2500000	4630	997261	1646261
Philippines	2000000	8823	1422747	2109490
Russian Federation	3100000	148188	6316396	28288260
Singapore	1200000	64584	1499332	1684952
Chinese Taipei	0	304940	0	10825899
Thailand	2300000	20180	1470811	4862704
USA	95354000	30058012	156678434	172352168
Viet Nam	200000	0	661784	1565040
Total	**228,984,990**	**34,774,830**	**273,408,362**	**430,712,040**
percent 2010	**74**	**98**	**82**	**66**
percent 2020	**26**	**2**	**18**	**34**

Notes and sources: as for table 6.1.1

Table 6.1.3 Growth of internet use and PC use

	% annual growth of internet users	% annual growth of PCs
Australia	250	12
Brunei Darussalam	50	13
Canada	134	12
Chile	609	22
China	3491	68
Hong Kong, China	192	17
Indonesia	430	10
Japan	189	19
Korea	626	16
Malaysia	438	30
Mexico	338	13
New Zealand	44	9
Peru	1017	24
Philippines	1225	13
Russian Federation	169	16
Singapore	75	17
Thailand	401	8
USA	54	12
Viet Nam #	49975	33
Total	**114**	**15**
unweighted average	**541**	**19**
uwa 2010	**193**	**15**
uwa 2020#	**818**	**22**
digital divide ratio	**0.236**	**0.678**

Notes and sources: as for table 6.1.1.
Viet Nam is excluded from the summary figures at the bottom of the table.

6.2 Finance for SMEs

Key Points:

- ***There is some indication that during much of the decade, the proportion of bank loans to SMEs seems to have declined in many of the economies for which data are available. For example in Australia it has declined from 39% in 1994, to 19% in 2000, and in Chinese Taipei, from 40% in 1992 to 27% in 1999. A less pronounced effect has occurred in Canada, Indonesia, Japan and Korea.***

- ***The rate of growth of bank loans to SMEs is volatile, but on limited available information it slowed in the last few years of the decade, except in the USA.***

The issue of improved access to finance for SMEs has been recognised as an area of importance in APEC. Anecdotal evidence is often cited that SMEs are disadvantaged when it comes to accessing finance, because of factors such as the relatively higher burden of transaction costs, financing gaps, and finance market inefficiencies.

SMEs draw finance from a range of sources; debt, equity and retained earnings take many forms. For example SMEs draw funds from informal sources such as “angels”, and from “friends, fools and family”. At a more formal level SMEs may source funds from sources such as micro lenders, banks, non bank institutions and from venture capitalists. Governments are also an important source of funds, both directly and indirectly (for example by means of credit guarantee to underwrite the risk of formal lender).

It is difficult to get comparable indicators of the amount of finance supplied to SMEs, and so it is difficult to see if there has been any improvement in SME access to finance since the establishment of APEC. However, some central banks require reporting by banks of business loans by size of loan or by type of borrower. This gives a rough guide as to the amount of lending to SMEs. It would be useful if APEC could encourage all central banks to adopt this practice as a means of tracking lending trends to SMEs. Bank finance is usually an important source of funds for SMEs. Where figures are available, bank finance seems to typically make up about 50% or so of the funds raised by SMEs, though this seems to be declining.

The figures in tables 6.2.1 and 6.2.2 suggest that over the last half of the 1990s, SMEs may have been getting a smaller share of the total supply of bank funds lent to business. For almost all the economies for which comparable data are available, the *proportion* of total loans going to small business appears to have been declining. For example, the proportion of small business loans in Australia fell to half its 1994 level by 2000, from 39% of total loans down to 19%. The decline in Chinese Taipei was from 40% of loans in 1992 to 26% in 2000. Canada, Japan, Korea and Indonesia have all seen declines in the proportion of loans going to SMEs, though of smaller magnitude, and in Indonesia’s case there was a sharp increase again in 1999.

At the same time as the *proportion* of small business loans declined, the *rate of growth* of small business loans tended to slow, or moved to negative growth in the latter part of the decade. The only exception was the USA. This suggests that not only may SMEs have tended to be relatively disadvantaged in comparison to larger firms toward the latter part of the 1990s, but they might have also seen a decline in the absolute amount of bank finance made available to them.

It is not clear why this apparent relative and absolute decline occurred, but if this reflects reality, then it is a matter of some concern. SMEs were apparently less able to access credit as the first APEC decade progressed. This may have some long term consequences, such as less start ups and less growth than otherwise. There are several possible explanations. The *first* is that it is due to some statistical anomaly. For example, “bracket creep” as borrowers seek larger loans to offset the effects of inflation. The figures used are not always loans to SMEs, but can represent business loans which are below a certain size, and which may be to an SME or to a large company. In the case of Canada, and Australia, loans to businesses for less than $500,000 are counted as small business loans. However, given that inflation rates were quite muted in this period, this is not likely to explain much. The *second* possible explanation is that other sources may have become markedly more attractive than banks as a source of finance to SMEs. This seems unlikely, because even though there was a flood of cheap money for venture equity toward the end of the 1990s, the trend of decline in bank

lending started well before the technology boom. Banks remain an important source of funds for small business, though there has been some increase in the amount of trade finance from suppliers in the US. The *third* is that banks tightened lending to small business, either because regulatory changes (such as BIS requirements) forced them to, or because the banks themselves saw SMEs and small loans as less attractive. This last explanation seems to be the most likely.

Table 6.2.1 Percentage of loans to SMEs

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Australia					39	37	31	30	26	21	19
Canada							23.6	23.6	23.25	22.7	22
Indonesia						22.3	21.1	23.7	17.7	20.2	32.2
Japan							64	65	64	62	60
Korea						53.5	53.1	49.7	49.8		
Chinese Taipei			39.92	38.77	37.2	35.53	33.79	31.16	29.24	27.28	26.16

Table 6.2.2 Annual percentage growth in amount of finance to SMEs

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	mean
Australia						6	12	1	-4	-12	8	1.73
Canada								-3.3	6.97	-1.7	-3.5	
Indonesia					10.4	34.9	18.6	37.1	-15.9	-25.2	15.4	10.76
Japan	5	3	2	1	1	1	0	-0.05	-2	-5		0.60
Korea							14.5	4.5	-1.40			5.88
Chinese Taipei				26	12	13	5	3	8	-0.02	-0.26	8.34
USA					-1	7.3	5.4	6				4.43

Notes to Tables 6.2.1 and 6.2.2

Australia	RBA Table D 08 - percentage of loans to business which are less than $AUD 500,000.
Canada	http://strategis.ic.gc.ca/SSG/rd00392e.html loans of less than CA$ 500,000
Indonesia	Central Bank of Indonesia - loans by commercial banks to small scale business as a % of total business loans
Japan	JSBRI SME White paper 2000 p 122. Figures are approximate.
Korea	Loan exposure of Deposit banks to SMEs as a % or all loans
Chinese Taipei	SME White paper 2000 p 99
USA	US Federal Reserve, Report to Congress on the Availability of Credit to Small Business, 1996, p 17. Note that banks in the US are required to report the proportion of commercial loans of less than $1 million US (small business loans), but these data are not published

Other evidence at member economy level

Japan

The equity ratio (defined as equity capital/total capital) in Japan SMEs (defined as firms with a paid up capital of less than 100 million Yen) has been falling steadily since 1991, from about 14% in 1991 to 9% in 1998. This is in contrast to large firms (with paid up capital greater than 100 million yen) where it has risen from 23% to 27% in the same period (JSBRI (2000) White paper on SMEs p 187).

Korea

"The loans to SMEs from financial institutions have steadily increased from the early 1990s. However, after the financial crisis in 1997, financial institutions became extremely reluctant to lend money to SMEs especially having high default risk. This credit crunch dealt a critical blow to SMEs by making deposit money banks to decrease their loan ratio for SMEs from 53% as at the end of 1996 to 49.8% as at the end of 1998. One of the main factors for this plunge was that in the course of financial restructuring in 1998, two private "SME-specialized banks" such as Daedong Bank and Dongnam Bank which used to play important roles in lending to SMEs were forced to be merged with three regional banks, Donghwa Bank, Kyunggi Bank and Chungchong Bank. " (Hong et al (1999))

Table 6.2.a Loan exposure to SMEs of deposit money banks

(unit : billion won, %)

	Dec. 1995	Dec. 1996	Dec. 1997	Dec. 1998
Total (A)	1,275,731	1,476,428	1,644,516	1,619,729
SMEs (B)	682,930	782,430	817,492	806,055
B/A	53.5	53.0	49.7	49.8

Note : National Agricultural Cooperatives Federation, National Federation of Fisheries Cooperatives, National Livestock Cooperatives Federation and foreign banks in Korea are excluded.
Source : The Bank of Korea.

Source: Hong et al (1999)

The following survey results for Korea show a steady decline in the relative importance of banks as a source of funding for SME plant and equipment. The proportion of funds supplied by banks has declined from about half in 1995, to about one third in 2000 and 2001. Most of this proportion has been replaced by equity, but the total funds raised for plant and equipment by SMEs has fallen from 65 million Won in 1995 to only 43 million Won in 2000, a drop of nearly 40%. Most of this drop was a drop in bank financing, which fell from 32 million Won in 1995, to 16.5 million Won in 2000. Much of this decline is probably because of the effect of the Asian Crisis in 1997, and the need for Korean banks to readjust their risk profiles. In the space of five years SMEs have had to almost double the proportion of equity capital they raise, as the amount for debt finance from banks has declined.

Table 6.2.b Korea - Survey of sources of Funds for investment in plant and equipment by Korean SMEs

	Equity capital	Financial institutions			Corporate bonds	Personal loan	Others	Total
		Banks	Secondary financial institutions	Sub total				
'95	24,791 (38.1)	32,420 (49.8)	5,212 (8.0)	37,632 (57.8)	362 (0.6)	547 (0.8)	1,797 (2.8)	65,128 (100.0)
'96	24,698 (38.1)	32,072 (49.5)	5,339 (8.2)	37,411 (57.7)	330 (0.5)	813 (1.3)	1,559 (2.4)	64,810 (100.0)
'97	19,283 (38.5)	22,509 (44.9)	5,489 (11.0)	27,998 (55.9)	686 (1.4)	126 (0.3)	1,994 (4.0)	50,087 (100.0)
'98	11,436 (62.8)	5,817 (31.9)	480 (2.6)	6,296 (34.6)	0 (0.0)	16 (0.1)	474 (2.6)	18,223 (100.0)
'99	21,800 (62.6)	11,919 (34.2)	414 (1.2)	12,333 (35.4)	0 (0.0)	89 (0.3)	599 (1.7)	34,821 (100.0)
'00	25,948 (59.4)	16,571 (37.9)	342 (0.8)	16,912 (38.7)	0 (0.0)	249 (0.6)	565 (1.3)	43,674 (100.0)
'01. 6	25,115 (61.9)	13,982 (34.5)	583 (1.4)	14,565 (35.9)	0 (0.0)	154 (0.4)	734 (1.8)	40,569 (100.0)

Source: SMBA http://www.smba.go.kr/english/ Industrial Bank of Korea, Monthly Industrial Bank Survey ( ) indicates the component ratio. The figures for 2001 represent estimated values.

Chinese Taipei

The reliance of SMEs on stockholders equity has risen from 25% of balance sheet liabilities to 32% from 1994 to 1999. In large enterprises it rose from 20% to 23% over the period (MOEA (2001), White paper on SMEs, p85).

USA

The USA undertakes major surveys of the financial services offered to, and used by SMEs every few years. The most recent survey (undertaken in 1997/9, USA Federal Reserve Board (2001) Financial Services Used by SMEs, 1997 Survey) shows that:

- banks are still the main source of SME financing;
- 55% of small business reported using lines of credit.

6.3 Technology and R&D (research and development)

Technology and R&D is one policy area where almost all APEC member economies have now adopted support policies for SMEs (see section 7). This is largely attributable to the importance given to technology in determining the level of future comparative advantage, and international competitiveness. It is perhaps surprising then that there are no comparable series on technology use and development by SMEs in APEC.

There seem to be at least four main areas where some useful indicator series could be developed, and comparisons could be made:

1. Productivity levels and improvements by size of firm. Productivity is difficult to measure in a meaningful way, because it is affected by many factors other than technology (such as investment in HRD, cyclical hiring and firing, planned stock buildup and rundown). However productivity continues to be a major indicator of the relative international competitiveness of SMEs.

2. The level of expenditure on Research and Development by SMEs (as a means of increasing access to new products, innovations).

3. The expenditure (for example on license fees, franchise fees, royalties etc) by SMEs obtaining technology (especially from abroad). This is of particular importance to less developed economies.

4. Level of usage or penetration of new technology such as E-commerce, broadband, and the intranet (which is partly covered in section 6.1). This is of importance in determining relative competitiveness in a global economy.

Other evidence at member economy level

Australia

Expenditure by SMEs (employing less than 100 people) on R&D in 1991 to 1993 was about $200,000 to $300,000, which was a little over 10% of the expenditure by large firms on R&D (which typically spent about $2,000,000 (ABS 1321.0 1995 p 100)

Although 75% of SMEs used computers in 1997 (relative to 100% of large firms), only about 25% of small business and 50% of medium sized businesses were connected to the internet in 1997/8 (as against 85% of large businesses) (ABS Small Business 1321.0 1999 pages 91 - 98 - Proportion of business using computers and internet).

Japan

Capital productivity (measured as value added/capital stock) for SMEs declined from .889 in 1991 to .658 in 1998, in contrast to capital productivity for large firms (with more than 100 million Yen paid up capital) which declined from .498 to .403 over the same period. (JSBRI (2001) White paper on SMEs p 186). In effect, capital productivity in Japan's SMEs declined by about 25% over the period, relative to large firm decline of about 19%. This is probably due largely to deflation, hollowing out, and declining demand reducing value added relative to a relatively constant capital stock.

Value added productivity (measured as value added/total employees including directors) fell slightly over the period from 1991 from 4,856 to 4,837 for SMEs, a fall of about 1%, relative to that for large firms which also fell from 9,960 to 9,696, a fall of about 2%.

Korea

"From the early 1990s, R&D expenses of SMEs continued to increase except for in 1997 when Korea entered into rapid economic recession due to the financial crisis. The continuous increase in R&D expenses in SMEs was attributed to the fact that SMEs had no choice but to put more emphasis on R&D to strengthen their competitiveness, realizing that they could not survive only with simple parts-supply business. Moreover, in line with the recently growing venture companies, R&D expenses in SMEs expanded on the whole centering around this sector.

Table 6.3.a Korea - R&D investment in manufacturing SMEs (unit : each, billion won, %)

		1991	1992	1993	1994	1995	1996	1997
No. of investment firms		3,653	4,821	5,645	6,334	6,519	7,084	6,911
	Ratio of investment firms	10.5	5.4	6.8	8.2	8.3	8.4	8.0
Amount of investment		208.2	247.5	441.8	497.3	436.8	500.5	344.0
	Ratio of investment to sales	0.24	0.26	0.42	0.41	0.31	0.34	0.30
Amount of investment per company (million won)		57.0	51.3	78.3	78.5	67.0	70.7	68.9

Source: KFSB, *Circumstances of Small and Medium Enterprises*. from Hong et al (1999)

Since 1991, around 8% of SMEs invested in R&D and the ratio of R&D investment to sales was between 0.2 and 0.4%. Meanwhile, the average annual amount of R&D investment per company in SMEs was between 70 million and 80 million Won. By industry, in the ratio of R&D expenses to sales, we see particular growth in some industries such as the medical, precision and optical instruments industry; the television and communication equipment industry; and office, accounting and computing machinery industry“ (Hong et al (1999)).

6.4 HRD and training

The major HRD issue identified in most SME WG meetings is the amount of training undertaken by SME managers and workers. The Beijing Initiative on APEC Human Capacity Building (May 15-16, 2001, Beijing) stressed the importance of HRD as a driving force for growth in a knowledge economy, and called for major efforts to improve human capacity building, especially as it relates to entrepreneurs and SMEs.

Unfortunately there are virtually no comparable data on the amount of training undertaken by SMEs or the level of education of SME managers. This is surprising given the rather large amount of activity within APEC devoted to HRD, and the recognition of the importance of SMEs in that context. APEC has a significant database of HRD indicators developed and maintained by the HRD WG, but this does not provide any breakdown by size of firm. It would be useful to develop some basic minimum indicators, such as for example:

1. amount of formal training undertaken per year by SMEs (expressed as hours per year or expenditure as percentage of sales or revenue, for example);

2. level of formal education of manager/owners of SMEs;

3. the levels of labour productivity broken down by firm size;

4. the needs of SMEs for HRD training.

Some economies do collect data via occasional surveys, but these are hard to compare.

Other evidence at member economy level

Australia

22% of small businesses (employing less than 20 people) offered some sort of management training in 1997/8, as against 50% of large businesses (employing more than 200 people) (ABS 1321.0 Small Business in Australia 1999 p 98).

Chinese Taipei

SMEs spent 0.52% of their operating costs on professional training in 1997, as against 0.55% spent by large firms, and in 1998 this had reversed with SMEs spending more (0.54%) than large firms (0.51%) (MOEA (2000) SME White paper p 82).

The education level for SME owners is usually lower than that of large firm owners. Those educated to senior vocational school level make up the biggest single group of SME managers (24.68%), with those educated only to junior high school making the next biggest (19.2%). University educated SME owners make up only about 13.17% of all SME owners, in contrast with large firms where 46.07% of owners have a university education (MOEA (2001) SME White paper, p 67).

The SMEA (Small and Medium Enterprise Agency) survey of SME needs in 2001 showed that the main type of talent SMEs need for future development are technical or service related talent (required by 51.1% of the respondents, and management talent (19.3%), and E-commerce talent (15.4%) (MOEA (2001) p 82).

6.5 Market access and impediments

There are no comparable indicators or statistics on market access and impediments. The issue of market access typically covers three main areas in the context of APEC SMEs. These are:

1. *International market access for exports and investment.*
   This issue relates to the unnecessary impediments faced by SMEs as they seek to access markets abroad, either by export, or by foreign investment. At the 1999 SME PLG in Christchurch it was agreed to develop a methodology for surveying market impediments to SMEs, but this has not come to fruition as yet. Given that over 80% of SMEs are in service industries, and given the low level of export trade and FDI recorded by SMEs (see section 5), this is an issue of some importance. APEC IAPs have been slow to identify and address impediments faced by SMEs in international trade and investment.

   Some economies have undertaken occasional surveys of the problems faced by their SMEs in undertaking export or foreign investment (including FDI via licenses, strategic alliances, technology agreements, etc). Access to E-commerce, and the impediments facing firms seeking to use E-commerce have also been an area of some attention.

2. *Access to markets for procurement and subcontracting*
   This issue relates to the unnecessary impediments that SMEs face in accessing subcontracting networks, or government procurement contracts. Subcontracting networks are increasingly important because they give access to international markets for SMEs in more sophisticated products.

   Some economies, notably the US, have statutory requirements that a certain proportion of government procurement be obtained from SMEs, or from particular sub groups of SMEs (such as minority and women owned SMEs). Where these are statutory requirements there is usually reasonably good statistical reporting of the activity.

3. *Competition and corruption law*
   This issue relates to the unnecessary impediments that SMEs may face arising from unfair competition (such as predatory pricing, monopolisation etc) when they seek to enter a market, or from corrupt practices, particularly of government officials.

Although access to markets is the raison d'etre of APEC, SMEs are usually not included in the bi-lateral trade negotiations which seek to address and reduce impediments to trade and investment. The problem is compounded in the case of SMEs because many of the impediments are non tariff barriers, and thus are not necessarily being addressed by the processes of TILF, IAP and Peer Review in APEC. The consequences of *not* addressing these impediments to SMEs may be quite large; as is argued in section 5, SMEs have the potential to add about $ 1 trillion per year to the APEC economy through expanded international trade, if APEC can move toward a simpler and more integrated economic market.

To monitor non tariff barrier impediments to SMEs will require the development of specific processes and systems. It is not able to be done easily by means of existing indicators, because there are none. This inevitably means expense and organisational commitment. The most cost effective way to approach it is probably in conjunction with the existing Industry Associations and Chambers of Commerce, who have an interest in assisting their internationalised SME members. With their cooperation, a voluntary system for notification of impediments could be established.

6.6 The role of women in SMEs

Key Points:

- ***Women make up about 30% of employers and own account workers in APEC economies for which data are available.***

- ***There has been a slight increase in the percentage of women employers and own account workers over the period 1990 - 1998.***

Table 6.6.1 Female employers and own account workers as % of total employers and own account workers

	1990	1996	1998
Australia	32.4	32.7	32.2
Canada	34.1	33.2	34.4
Indonesia			31.0
Japan	30.9	29.0	29.4
Korea	27.3	28.9	27.2
Mexico	13.7	25.9	27.6
New Zealand		29.1	31.8
Philippines			34.0
USA	33.2	37.2	37.1
uwa APEC	**28.60**	**30.85**	**31.63**
uwa 2010	**32.65**	**32.24**	**32.98**
uwa 2020	**20.50**	**27.40**	**29.95**

Sources: OECD (2000) SME Outlook 2000, and
APEC (1999b) Bang Jee Chun, Women Entrepreneurs in SMEs in the APEC Region.
Unweighted average (uwa) = average of the non zero statistics for all APEC economies. Unweighted averages are the averages of the actual percentages in the relevant column, and are not weighted by the total size (which thus gives relatively less weight to large economies like China and USA and relatively more weight to small economies like Hong Kong China and Chinese Taipei).
2010 - economies seeking to meet 2010 targets (*identified in italics*)
2020 - economies seeking to meet 2020 targets

There is some evidence (APEC (Bang Jee Chun) (1999b), Women Entrepreneurs in SMEs in the APEC Region, APEC, Singapore, p 13) that :

- Women owned firms are growing faster than male owned SMEs: “While data limitations do not allow an exact accounting of the share of employment or revenue growth accounted for by women-owned firms, we can say the growth in the number of women-owned firms exceeds overall business growth by 2:1 in Canada and 1.5:1 in the United States. In other economies, though growth also appears to be strong, there is little historical information upon which to analyze trends”.

- Women owned firms are much more likely to be micro firms, employing less than 5 people (and in many cases are non-employing).

6.7 Administrative burden

Although some economies review the compliance, regulatory and administrative burden imposed on firms by governments, there are no comparable data on the effect on SMEs in APEC of these burdens.

Anecdotal evidence and research in non APEC economies (Netherlands, Ministry for Economic Affairs, (1995) Towards Lower Administrative Costs, The Hague) suggests that these burdens are disproportionately borne by SMEs relative to larger firms, and especially those SMEs which are active across borders or across industries. It is therefore likely that administrative burdens are a significant factor impeding the internationalisation of SMEs in APEC.

It would be useful to develop indicators based on amount of time spent on compliance by SMEs, especially those SMEs with international operations. This can only be done by surveys, or by data collection via government agencies.

6.8 Overall business policy environment

In 2002 the "policy environment" was formally added to the SPAN for the SME WG in addition to the five existing policy areas (information access, finance, HRD, market access, and technology). The policy environment is loosely defined as "prudent fiscal management, effective regulatory environment, competitive trade policies". There are two aspects to this:

1. a short term cyclical aspect, typically related to changes in the short term business environment over periods of one year or less; and
2. a longer term structural aspect, which is related more to changes and trends which take place over periods of more than one year.

If member governments are to work together in APEC to build a better business and policy environment for SMEs and entrepreneurs, then it would be useful to monitor changes in that environment so that we know we are at least making improvements and generally going in the right direction. The APEC SME WG is now also moving to an increased emphasis on evaluation of policy effectiveness. To do this would require some comparable measures, surveys, or "scorecards" that that might allow better monitoring. There are already some monitoring devices and tools available in some of the member economies. APEC could build upon these to develop a more focussed and comparable set of indicators.

Short term cyclical aspects

Being able to monitor the broad business environment for short term volatility, and to track SME activity, expectations and sentiment is important to many organisations; the SMEs themselves, policy makers, and to large firms with a customer base of SMEs (such as banks, telcos, transport firms etc). SMEs are usually unable to diversify risk as effectively as larger firms, and thus tend to be more adversely affected by volatile economic conditions. However, the same volatility can open up new opportunities for other SMEs, which can be more flexible and able to adapt quickly. Consequently, both government and the private sector use surveys to monitor the short term business environment and the way it is affecting SMEs. These surveys are typically carried out monthly, quarterly or yearly. For example, in Australia, the Yellow Pages® Business Index tracks small and medium enterprise (SME) activity over the preceding three months, expectations over the next three and 12 months, and overall confidence within the SME community http://www.sensis.com.au/. Similarly, in Canada, the Small Business Quarterly tracks selected statistics and trends relevant to SMEs http://strategis.ic.gc.ca/SSG/rd00044e.html. In Japan, the Tankan tracks opinions, sentiment, plans and conditions as they relate to SMEs and to large firms www.boj.or.jp. In the USA, Dunn and Bradstreet carry out an annual survey of small business sentiment and trends http://sbs.dnb.com/default.asp.

There might be some case for APEC to work cooperatively with some of these organisations which carry out surveys already to:

a. encourage them to extend their survey operations to other APEC economies not currently covered (mostly the 2020 economies); and to
b. see if it is possible to increase comparability between the surveys carried out in different economies.

Longer term structural aspects

In the longer term, the basic question is "if we as a government, as a society, or as a business community, wish to create a business and policy environment which encourages entrepreneurship and continuous and sustainable renewal, and improvements in quality of life and job opportunities, then what should that environment look like?"

There is not a single simple answer to this question. In an increasingly global and interdependent world, governments and societies need to identify the "gaps", or areas where they are deficient in meeting conditions for an attractive environment for entrepreneurs. There is general recognition that some structural features (such as rule of law, transparency, intangible and tangible infrastructure and so on) are important in providing a conducive business environment. APEC, through the Bogor goals has clearly signaled that it seeks to achieve certain structural targets in relation to freedom of trade and investment. Moving from the extant to the "ideal" business policy environment is a slow process of structural change, which involves time spans of many years. This has clearly been recognised in

the APEC 2010 and 2020 goals. However, to a large extent the gaps between the extant and the "ideal" are relative, not absolute. They depend upon what other economies are doing and achieving in terms of improvement in their business and policy environment. As is demonstrated in section 7, there have been quite significant changes in policy approaches with respect to SMEs over the first APEC decade. However as also shown in section 7, there are different ways, and different policy combinations, that can be used by different economies to achieve the same ends. There is not necessarily an "ideal " business policy environment in the sense of a "best practice" or "one size fits all" set of policy conditions suited to all economies at all times under all conditions.

This means that shaping the business policy environment, particularly in relation to SMEs and entrepreneurs, is a more sensitive process of adapting to local and global conditions. Is it possible to monitor the business policy environment in member economies in such a way that would help governments and social groups to better understand where the gaps are, and where there might be room for making improvements?

There are already some surveys, scorecards and monitoring devices which may be useful for this purpose. For example, The World Competitiveness Survey, http://www02.imd.ch/wcy/ is one device which monitors longer term trends and changes in the structural characteristics which affect the international competitiveness of economies. Similarly, New Zealand has set out a specific scorecard and targets for achieving structural changes http://www.kwroadshow.org.nz/Changing_Gear.pdf. These are not usually specifically relevant to SMEs and entrepreneurs, but it may be possible to build upon them in order to develop a "scorecard" which is more appropriate to the needs of APEC and the SME WG in particular.

7. Policy Priorities and Programs

Key Points:

- ***Since at least 1994, <u>all</u> APEC members have adopted policies and programs which are designed to support SMEs, and for the most part are aimed at making SMEs more globally competitive. However the practical aspects of how they do this differs quite a lot between economies. For example, about half of the APEC economies have adopted an "SME Basic Law" or "SME Magna Carta", and half have not. About 40% now adopt a non discriminatory approach, where they develop policies aimed at supporting firms no matter what their size, and about 60% adopt policies which intentionally target and discriminate in favour of SMEs.***

- ***The approaches used to create an overall business policy environment differ. No two member economies have exactly the same policy settings. This suggests that policy environments must be adapted to the particular stage of development, and to the political and social needs of each economy. Thus there is probably no one "ideal" or "best practice" policy environment which is appropriate for all economies at any one time. This also means that an internationalised SME (and there are probably about 4 million or so such SMEs) in APEC faces different policy environments in different economies, something which may add to their administrative burden, and limit their capacity to expand and compete.***

- ***In the last decade many more APEC members have made significant steps to adopt policies designed to assist SMEs, particularly in areas related to access to information, information technology (IT) and E-commerce. For example, the areas where most change has been recorded are as follow:***

percentage of economies responding "yes" in ….	*% 1994*	*% 2000*
Is there an agency or administration within govt with the primary responsibility for SMEs?	***65***	***85***
Is there a single point where people can go for advice and referrals on where to get information about govt regulations etc?	***29***	***75***
Is there a single portal or entry point for people seeking advice on govt regulations and requirements?	***24***	***60***
Does the govt provide any programs to assist SMEs to adopt information technology and better management systems?	***29***	***85***
Is there any govt supported program in place to provide micro finance to those (eg to ethnic or minority groups) seeking to start a business?	***6***	***60***
Are there business matching services provided by govt or supported by govt?	***47***	***75***

- ***Almost all economies have a strong policy focus on the areas of technology, and HRD, and there has been little change in the relative emphasis on these areas in the period from 1994/96 and 2000/01.***

This section endeavours to compare SME policy and programs amongst APEC economies as they were in 1994/96, and in 2000/01. It constitutes the first attempt to analyse, in roughly comparable terms, the SME policy approaches adopted by member governments and the changes therein over the first APEC decade. It is based on the five broad policy areas originally identified by the APEC SME PLG as being of particular relevance to the role of government in developing and implementing SME policy in an open APEC economy. For the purposes of this analysis three additional areas have been added (the general policy approach; women and minorities; and administrative burden) to the original five. The policy areas analysed are as follow:

1. General SME policy thrust or approach;
2. Information access;
3. Finance;
4. Technology and technology transfer;
5. HRD and training;
6. Market access and impediments;
7. Role of women and policies to promote women and ethnic minority owned and operated business;

8. Administrative burden imposed on SMEs by government regulation.

In addition, in response to the emphasis place on micro enterprises by Mexico in 2002, a separate analysis of micro enterprise policy in APEC was undertaken. Findings from this are presented in section 7.8.

The following tables in sections 7.1 to 7.7 show a "1" where there is a reasonably clear answer of "yes" to the question or criterion set out in the second part of the table. Where there is a blank, it indicates that the answer is "no" or "insufficient information to tell". The tables are based on official responses made to the APEC Survey of SMEs carried out in 1994 by Chinese Taipei, the Survey of Best Practices by Japan in 1995, the SME Profile by Malaysia in 1998, and a specific survey (APEC SME Policy Questionnaire - see appendix D) undertaken for this study, which was completed by member economy representatives. Preliminary results were circulated at the 2001 APEC Ministerial Meeting in Shanghai, and corrections or comments sought. Further opportunity for corrections and comments was given to members at the SME WG Meeting in Vina del Mar in 2002, and at the Ministerial Meeting in Acapulco in 2002. Whilst there may still be some disagreement with some of the data for specific policies in specific economies, this gives as reasonable as possible picture of the policy stances adopted.

The approach adopted here is obviously a simplification of much more complex issues. Attempts to compare SME policy and programs in this way are fraught with difficulty because:

- any interpretation of complex program and policy issues in this way is subjective and open to interpretation and dispute;
- most programs and policies are matters of shades of grey rather than being clear "black and white", or "yes or no";
- governments do not necessarily always do what they say they do.

However, the tables and the approach used helps us to see:

- changes in policy that have occurred over the first APEC decade;
- some clear common features; and
- some major differences.

Has APEC made any difference to the way SME policy is focussed and implemented? The answer is almost certainly "yes". For example, over the course of the APEC decade there has been a clear increase in the number of economies adopting one stop shops, and having a single agency responsible for SMEs. There has been an increase in the number of economies providing micro finance, and venture capital support. Nearly all economies now provide support for technology development, commercialisation and IT. There has been an increase in the economies providing business matching services, and access to government procurement markets for SMEs. In short, a lot of things have been improved.

There are also some common features emerging. For example, it is now common to all APEC economies that they recognise the need to encourage globally competitive SMEs. Almost all economies provide programs to give SMEs HRD support, and almost all now provide subsidised information, and technology support programs. That said, no two economies have exactly the same "package" of policy responses. This suggests that policy environments must be, and are, adapted to the particular stage of development, and to the political and social needs of each economy. Thus there is probably no one "ideal" or "best practice" policy environment which is appropriate for all economies at any one time. This also means that an internationalised SME (and there are probably about 4 million or so such SMEs) in APEC faces different policy environments in different economies, something which may add to their administrative burden, and limit their capacity to expand and compete.

The major differences between economies lie with matters of philosophy as to how to intervene, and with the resources available to implement policies. There is almost an even split between those economies which support a "Basic SME Act", or "SME Magna Carta", approach and those which do not. The Basic SME Act sets out in law certain obligations of government to the development of SMEs, and it was pioneered in post war Japan. About 40% of economies adhere to a non-discriminating policy approach; that is they do not seek to provide any special support for SMEs, but rather design laws, regulations and programs for all firms. The remaining economies reserve the right

to develop laws, regulations and programs which discriminate on the basis of size of firm, though there is usually some flexibility in interpreting size. The other major area of difference probably has more to do with lack of resources; many 2020 economies do not have the resources to implement some policies effectively.

7.1 General policy approach

The business environment that SMEs operate in is determined, in part, by the broad policy approach adopted by governments, in conjunction with the implementation of specific policies and initiatives. Since the inception of APEC, all APEC economies have had programs designed to support SMEs, and all say they aim at helping SMEs to survive and succeed in a globally competitive environment. There is thus widespread agreement on the main thrust of SME policy. However they differ on how these broad policy goals should be achieved. For example, more than half actually target SMEs (and particular groups of SMEs), and actively support SMEs. The rest design programs for all firms, but keep SMEs in mind when they do. Only about a quarter had adopted a "Basic SME Act" in 1994/96, increasing to about half in 2001. A basic act approach to general policy defines and sets out in writing the obligations of the government to SMEs. In 1994/96, about two thirds had a clearly identified central agency primarily responsible for coordinating SME programs and policy development. This proportion rose to nearly all economies in 2001.

Table 7.1.1 Comparison of general policy approach

GENERAL 1994/96	AUS	BD	CDA	CHL	PRC	HKC	INA	JPN	ROK	MAS	MEX	NZ	PNG	PE	RP	RUS	SIN	CT	THA	USA	VN	%
Non discriminating policy	1	1	1	1		1						1					1			1		**47**
SME discriminating policy								1	1	1	1				1			1	1			**41**
SME support programs	1	1	1	1	1	1	1	1	1	1	1	1			1		1	1	1	1		**100**
Targeted programs					1			1	1	1	1						1	1	1			**47**
Competitive environment	1	1	1	1	1	1	1	1	1	1	1	1			1		1	1	1	1		**100**
SME basic act								1	1						1			1				**24**
SME coordinating agency				1		1	1	1	1	1	1				1			1	1	1		**65**
GENERAL 2000/01	**AUS**	**BD**	**CDA**	**CHL**	**PRC**	**HKC**	**INA**	**JPN**	**ROK**	**MAS**	**MEX**	**NZ**	**PNG**	**PE**	**RP**	**RUS**	**SIN**	**CT**	**THA**	**USA**	**VN**	**%**
Non discriminating policy		1	1			1		1			1					1	1			1		**40**
SME discriminating policy	1			1	1			1		1	1	1		1	1		1	1	1			**60**
SME support programs	1	1	1	1	1	1		1	1	1	1	1		1	1	1	1	1	1	1		**90**
Targeted programs	1	1	1	1	1			1	1	1	1	1			1		1	1	1			**70**
Competitive environment	1	1	1	1	1	1		1	1	1	1	1		1	1	1	1	1	1	1		**90**
SME basic act								1	1	1	1			1	1	1		1	1			**45**
SME coordinating agency	1	1	1	1	1	1		1	1	1	1			1	1	1	1	1	1	1		**85**

GENERAL	QUESTIONS
Non discriminating policy	Are policies designed in such a way as to NOT discriminate between SMEs and large firms?
SME discriminating policy	Are policies designed to discriminate in favour (or against) SMEs or specific groups (eg affirmative action for minority or women entrepreneurs)
SME support programs	Are any programs designed to meet special needs of SMEs (whether they discriminate or not)?
Targeted programs	Are any programs targeted at any particular group of SMEs (eg SMEs as subcontractors to larger firms, "picking winners", export oriented SMEs, etc ?)
General competitive environment programs	Are *most* programs intended to provide or support a business environment which encourages globally competitive SMEs?
SME basic act	Is there a basic SME Act or "Magna Carta" which sets out obligations of govt to SMEs?
SME coordinating agency	Is there an agency or administration within govt with the primary responsibility for SMEs?

Notes: "1" indicates a "yes" to the criteria or questions provided in the bottom table. A blank indicates "no", no response or no indication of what policy is.
% For 1994/96 are based on the number of "1"s in that row, divided by 17 economies (ie all APEC economies in 1990 - 1995 excluding PNG which did not respond to the previous surveys, and excluding later entrants [The Russian Federation, Peru and Viet Nam]).

% For 2001 are based on 20 economies. PNG has not responded to any requests for this Profile, and was excluded. Indonesia and Viet Nam have not responded to the questionnaire. The maximum "score" is thus 18/20 = 90%.

Sources: for 1994 - 96 answers are based on official responses provided in the following. Economies were asked to check the tables and provide corrections and additions:

APEC (1994), The APEC Survey on Small and Medium Enterprises, Chinese Taipei.
APEC (1995a) Best Practices for SMEs in APEC, MITI, Japan
APEC (1998) Profile of SMEs in APEC Economies, SMIDEC, Malaysia

For 2001 - see questionnaire in Appendix D

7.2 Information access

APEC economies have generally increased their efforts at providing access to information for SMEs, and there has been a marked improvement in this area over the APEC decade. In 1994/96 only about 30% of economies had a one stop shop approach, but by 2000/01 this had risen to 75%. A one stop approach implies that an SME should only have to go to one place or point to obtain the necessary information and permits to do business. In 1994/96 only 25% of APEC economies had adopted a workable method for providing a single access point for businesses seeking information about government and its regulations, but by 2001 this had risen to 60%. Where in 1994/96 only 40% of economies provided subsidies to assist SMEs accessing information on things like market opportunities and technology, by 2000/01 this had doubled to 80%. The widespread acceptance and evolution of web and internet based technology has made it much easier and cheaper for governments to provide information access, and this shows in the marked improvements. However as noted in section 6, the size of the digital divide between 2010 and 2020 economies means that many SMEs in 2020 economies have probably not benefited much from this trend.

Table 7.2.1 Comparison of information access policies

INFORMATION ACCESS 1994/96	AUS	BD	CDA	CHL	PRC	HKC	INA	JPN	ROK	MAS	MEX	NZ	PNG	PE	PRP	RUS	SIN	CT	THA	USA	VN	%
one stop shop on govt regulations	1		1														1	1		1		**29**
single entry point for info on govt	1		1														1	1				**24**
subsidised information						1	1	1	1		1						1	1				**41**
INFORMATION ACCESS 2000/01	**AUS**	**BD**	**CDA**	**CHL**	**PRC**	**HKC**	**INA**	**JPN**	**ROK**	**MAS**	**MEX**	**NZ**	**PNG**	**PE**	**PRP**	**RUS**	**SIN**	**CT**	**THA**	**USA**	**VN**	**%**
one stop shop on govt regulations	1		1		1	1		1	1	1	1	1			1	1	1	1	1	1		**75**
single entry point for info on govt	1	1	1		1	1		1			1	1			1	1		1	1			**60**
subsidised information	1	1	1	1	1	1		1	1		1	1		1	1	1		1	1	1		**80**

INFORMATION ACCESS	QUESTIONS
one stop shop on govt regulations	Is there a single point where people can go for advice and referrals on where to get information about govt regulations etc?
single entry point for info on govt	Is there a single portal or entry point for people seeking advice on govt regulations and requirements?
subsidised information	Is there any govt support for providing firms (including SMEs) with access to intelligence and information of a non govt nature (eg market research, technical information etc)

Notes and sources: see section 7.1

7.3 Finance

There has been an increase in the proportion of economies providing finance and finance programs for SMEs, but there are differences in the way this financial assistance is delivered. This increase is most notable in the areas of micro finance, where about 60% of the APEC economies now have specific policies and programs. The estimate of only 6% of economies having micro finance programs in 1994/96 is almost certainly an understatement, but the increase reflects more active promotion of this as a policy by international agencies in developing economies. Whilst few economies overtly provided discriminatory tax regimes to favour SMEs in 1994/96, about 60% now say they do as a matter of policy. Venture capital support has also increased sharply, increasing from 41% to 70% of economies providing such programs. About half of the APEC economies provide credit guarantee, and about half do not. Almost all economies provide some form of export finance support (often via credit guarantee) for SMEs, though this is usually also available to large firms as well.

Note that since these data were collected, Hong Kong China has introduced significant changes in its policy with respect to financial assistance for SMEs.

Table 7.3.1 Comparison of finance policies

FINANCE 1994/96	AUS	BD	CDA	CHL	PRC	HKC	INA	JPN	ROK	MAS	MEX	NZ	PNG	PE	RP	RUS	SIN	CT	THA	USA	VN	%
credit guarantee for SMEs			1					1	1						1		1	1	1	1		**47**
export finance support	1	1	1					1	1						1		1	1		1		**53**
venture capital support	1		1					1	1								1	1		1		**41**
general finance support		1	1				1	1	1		1				1		1	1	1	1		**65**
micro finance			1																			**6**
Discriminatory tax rates			1					1	1													**18**
FINANCE 2000/01	**AUS**	**BD**	**CDA**	**CHL**	**PRC**	**HKC**	**INA**	**JPN**	**ROK**	**MAS**	**MEX**	**NZ**	**PNG**	**PE**	**RP**	**RUS**	**SIN**	**CT**	**THA**	**USA**	**VN**	**%**
credit guarantee for SMEs			1	1				1		1	1				1			1	1	1		**45**
export finance support	1	1	1	1	1				1	1	1	1		1	1			1	1	1		**70**
venture capital support	1	1	1	1	1			1	1	1	1	1				1		1	1	1		**70**
general finance support		1		1				1	1	1	1				1			1	1	1		**50**
micro finance	1	1	1					1		1	1	1			1	1		1	1	1		**60**
Discriminatory tax rates	1	1	1		1			1	1	1	1			1	1	1		1				**60**

FINANCE	QUESTIONS
Credit guarantee for SMEs	Is there govt underwriting of credit guarantee for SMEs in domestic operations?
Export finance support	Is there govt support (including credit guarantee) for SMEs engaged in exports?
Venture capital support	Is there govt support (tax concessions, pooled funds etc) for start up and venture companies?
General finance support	Is there govt support (subsidised or regulated interest rates, etc) for SMEs or small business generally?
Micro finance	Is there any govt supported program in place to provide micro finance to those (eg to ethnic or minority groups) seeking to start a business?
Discriminatory tax rates	Are SMEs given any concessional or favourable tax rates (eg special exemptions on certain taxes, reduced company tax rates etc)?

Notes and sources: See section 7.1

7.4 Technology and technology transfer

Technology assistance for SMEs is one policy area where almost all APEC economies have now adopted the same main policies. This is a marked change from 1994/96, when only about two thirds of the APEC economies provided subsidies for technology development, commercialisation, and transfer/absorption of new technology, and only one third provided IT and systems support. This seems to reflect a general trend and recognition that comparative and competitive advantage is increasingly created, not given, and that governments can play an important role in the process by supporting the development and adoption of better technology.

Table 7.4.1 Comparison of technology policies

TECHNOLOGY 1994/96	AUS	BD	CDA	CHL	PRC	HKC	INA	JPN	ROK	MAS	MEX	NZ	PNG	PE	PRP	RUS	SIN	CT	THA	USA	VN	%
Subsidies/support for R&D	1		1	1	1			1	1								1	1	1	1		**59**
Commercialisation support	1		1			1	1	1	1	1							1	1	1	1		**65**
IT and systems support								1	1	1							1	1				**29**
Other technology support		1				1	1	1	1	1	1				1			1	1			**59**
TECHNOLOGY 2000/01	**AUS**	**BD**	**CDA**	**CHL**	**PRC**	**HKC**	**INA**	**JPN**	**ROK**	**MAS**	**MEX**	**NZ**	**PNG**	**PE**	**PRP**	**RUS**	**SIN**	**CT**	**THA**	**USA**	**VN**	**%**
Subsidies/support for R&D	1	1	1	1	1	1		1	1	1	1	1			1	1	1	1	1	1		**85**
Commercialisation support	1	1	1		1	1		1	1	1	1	1		1	1	1	1	1	1	1		**85**
IT and systems support	1	1	1	1	1	1		1	1	1	1	1		1	1	1	1	1	1			**85**
Other technology support	1	1	1	1	1	1		1	1	1	1	1		1	1	1	1	1	1			**85**

TECHNOLOGY	QUESTIONS
Subsidies/support for R&D	Does govt provide any support (tax concessions, access to public research institutions, public incubators etc) for basic research
Commercialisation support	Does the govt provide support (incubators, underwriting, network or cluster support etc) for the commercialisation of innovations or start up of innovative companies?
IT and systems support	Does the govt provide any programs to assist SMEs to adopt information technology and better management systems
Other technology support	Does the govt provide any programs to encourage the adoption of more efficient technology (eg pollution control, manufacturing processes etc)

Notes and sources: See section 7.1

7.5 HRD

HRD is widely recognised as one of the key areas where government can actively support SMEs. The importance of HRD is demonstrated by the fact that almost all the APEC economies provide subsidies for the training of SME managers and staff, and have done so since 1994/96 or earlier. Approaches to this vary widely, as do budgets, delivery channels, and targets for the programs. Similarly almost all economies now provide diagnostic service support, a slight increase from 1994/96.

Perhaps surprisingly, it appears that few of the APEC economies require entrepreneurship training to be part of the basic school curriculum. Given that at least one person in twenty in the population in the 2010 economies usually finished up running an SME it might be appropriate to increase the availability of entrepreneurship and small business management training in schools.

Table 7.5.1 Comparison of HRD policies

HRD 1994/96	AUS	BD	CDA	CHL	PRC	HKC	INA	JPN	ROK	MAS	MEX	NZ	PNG	PE	RP	RUS	SIN	CT	THA	USA	VN	%
Subsidised training and consulting advice?	1	1	1	1	1	1	1	1	1	1	1	1			1		1	1	1	1		**100**
Diagnostic services	1		1	1		1		1	1			1			1		1	1	1	1		**71**
Entrepreneurship at school																						**0**
HRD 2000/01	**AUS**	**BD**	**CDA**	**CHL**	**PRC**	**HKC**	**INA**	**JPN**	**ROK**	**MAS**	**MEX**	**NZ**	**PNG**	**PE**	**RP**	**RUS**	**SIN**	**CT**	**THA**	**USA**	**VN**	**%**
Subsidised training and consulting advice?	1	1	1	1	1	1		1	1	1	1	1		1	1	1	1	1	1	1		**90**
Diagnostic services	1	1	1	1		1		1	1	1	1	1		1	1	1	1	1	1	1		**85**
Entrepreneurship at school		1								1	1				1							**20**

HRD	QUESTIONS
Subsidised training and consulting advice?	Is there govt support (eg part payment, loans, facilities, trainers, facilitators etc) for training or consulting and advice to SMEs?
Diagnostic services	Is there govt support (eg part payment, loans, advisors etc) for providing diagnostic services and advice to SMEs?
Entrepreneurship at school	Is entrepreneurship or business a *required* subject in pre university schooling?

Notes and sources: See section 7.1

7.6 Market access

Given its enormous importance at an APEC level, it is not surprising that market access policies and programs have been more widely adopted over the APEC decade to 2000. That said, there are still several areas where only half or less than half of members have adopted policies which might give much more opportunity and market access to SMEs in APEC, as against just assisting their own SMEs. Almost all the APEC economies provide subsidised access to export advice and assistance, though this is not usually aimed at SMEs, and in some economies it has been moved to full cost recovery. About three quarters of the economies provide subsidies for networks and cooperatives of SMEs to set up and operate. About three quarters now have subsidies for business matching services, up from about 50% in 1994/96. About half now have processes for protecting SMEs from unfair competition, but these are usually not the domain of SME authorities or agencies. Similarly about half support subcontractor networks. Only a quarter of APEC members provide access to foreign SMEs to government procurement or government sponsored networks (such as credit guarantee or subcontractor networks).

Table 7.6.1 Comparison of market access policies

MARKET ACCESS 1994 - 96	AUS	BD	CDA	CHL	PRC	HKC	INA	JPN	ROK	MAS	MEX	NZ	PNG	PE	RP	RUS	SIN	CT	THA	USA	VN	%
Export assistance advisory	1	1	1			1		1	1	1	1	1			1		1	1	1	1		**82**
Support for Networking & Coop programs	1	1	1		1		1	1	1	1							1	1	1	1		**71**
Business matching services			1			1		1	1								1	1	1	1		**47**
Unfair competition limits	1		?																	?		**6**
Reciprocal recognition of IP																						**0**
Govt Procurement																				1		**6**
Subcontractor network				1				1	1	1							1	1	1			**41**
International access																						**0**

MARKET ACCESS 2001	AUS	BD	CDA	CHL	PRC	HKC	INA	JPN	ROK	MAS	MEX	NZ	PNG	PE	RP	RUS	SIN	CT	THA	USA	VN	%
Export assistance advisory	1		1	1		1		1	1	1	1	1			1			1	1	1		**65**
Support for Networking & Coop programs		1	1	1	1	1		1			1	1		1	1		1	1	1	1		**70**
Business matching services	1	1	1	1	1	1		1	1	1	1				1	1	1	1		1		**75**
Unfair competition limits	1		1	1				1	1		1	1				1		1	1			**50**
Reciprocal recognition of IP	1	1	1	1		1		1	1		1	1			1	1	1	1	1			**70**
Govt Procurement	1							1		1				1	1	1		1		1		**40**
Subcontractor network	1	1	1	1						1	1	1		1	1		1		1			**55**
International access	1									1	1	1			1							**25**

MARKET ACCESS	QUESTIONS
Export assistance advisory	Are there export advisory services that are available to firms at less than full market cost?
Support for Networking & Coop programs	Is there govt support (eg part payment, loans, training etc) for networking or cluster start up or cooperatives
Business matching services	Are there business matching services provided by govt or supported by govt?
Unfair competition limits	Is there any legal process or protection for SMEs suffering from unfair competition, predatory activity etc from large firms?
Reciprocal recognition of IP	Is there reciprocal recognition of intellectual property rights (patents, licenses, copyright, trademarks etc) already established in another economy?
Govt Procurement	Are govt agencies required to procure a proportion from SMEs?
Subcontractor network	Is there govt support for (financial support, infrastructure etc) for databases to allow large firms and subcontractors to exchange information and opportunities
International access	Are non-domestic SMEs (ie not registered in that economy) able to access govt procurement or govt sponsored networks (such as credit guarantee or subcontractor networks)?

Notes and sources: See section 7.1

7.7 Administrative burden, and the role of women

It should be noted that neither of these two areas were regarded as priority areas by the SME PLG in the early 1990s, and thus they were not included in any of the policy surveys of that time. This explains the rather low figures for the 1994 data. However, they are now seen as important areas.

Administrative Burden: It is perhaps surprising that only one quarter of all APEC economies have a single registration number for SMEs. The adoption of a single number, applicable across APEC has the potential to reduce the administrative costs for internationally active SMEs quite significantly, and thus would be a relatively simple initiative to encourage trade and investment by SMEs. Only a quarter of APEC economies make any regular systematic attempt to monitor the compliance burden put on SMEs. This burden is a common complaint of SMEs, since it tends to fall disproportionately heavily on SMEs. There is a tendency for the burden to grow organically unless restrained by determined political action.

Women: It is also a little surprising that some 40% of APEC economies still do not have a legislative requirement that financial providers cannot discriminate on the basis of sex or ethnicity or age. Similarly, 40% do not have programs designed specifically to encourage start up/success of businesses owned by minorities or women.

Table 7.7.1 Comparison of policies on administrative burden, and on women

ADMINISTRATIVE BURDEN AND WOMEN 1994 - 96	AUS	BD	CDA	CHL	PRC	HKC	INA	JPN	ROK	MAS	MEX	NZ	PNG	PE	PR	RUS	SIN	CT	THA	USA	VN	%
ADMIN BURDEN																						
Compliance burden monitoring			?																	?		**0**
Single registration no			1																			**6**
WOMEN																						**0**
Non discrimination in finance	?		?																	?		**0**
Minority support	?																			?		**0**

ADMINISTRATIVE BURDEN AND WOMEN 2001	AUS	BD	CDA	CHL	PRC	HKC	INA	JPN	ROK	MAS	MEX	NZ	PNG	PE	PR	RUS	SIN	CT	THA	USA	VN	%
ADMIN BURDEN																						
Compliance burden monitoring	1							1			1						1	1				**25**
Single registration no	1					1				1				1		1						**25**
WOMEN																						**0**
Non discrimination in finance	1			1	1	1			1		1	1		1	1		1		1	1		**60**
Minority support	1		1	1				1	1	1	1	1		1	1	1		1		1		**65**

ADMINISTRATIVE BURDEN AND WOMEN	QUESTIONS
ADMIN BURDEN	
Compliance burden monitoring	Is there a regular process for reviewing the amount of time and resources spent by firms (including SMEs) on complying with govt regulatory requirements ?
Single registration no	Is there a single reference number and a business register which limits the amount of repeat information that a firm has to input when completing govt forms?
WOMEN	
Non discrimination in finance	Is there a legislative requirement that financial providers cannot discriminate on the basis of sex or ethnicity or age?
Minority support	Are there any programs designed specifically to encourage start up/success of businesses owned by minorities or women?

Notes and sources: See section 7.1

7.8 Micro enterprise policy in APEC

There is no agreed definition of a micro enterprise in APEC, and until 2002 micro enterprises were not distinguished from SMEs more generally in APEC policy discussions. In section 1 it is shown that the most common definition of a micro enterprise adopted in APEC is a firm employing less than 5 employees. Section 3.3 shows that firms employing less than 5 people contribute about 75% of all enterprises, and contribute about 30% of jobs. These figures usually do not include the informal sector micro enterprises, nor do they include the "black economy"; by definition it is difficult to assess just how many of these non-formal enterprises exist, or what they actually contribute. Most micro enterprises are "non employing". That is they are made up of an entrepreneur, who does not actually employ anyone else. This is true in both the developed and the developing economies. The average size of *all* SMEs in APEC is only about 6 or 7 employees (plus the entrepreneur), which is not much bigger than the statistical definition adopted by most economies for a micro enterprise.

There is a big difference in the relative importance of micro enterprises in developing (2020) and developed (2010) economies in APEC; micro firms are much more important in 2020 economies, in terms of proportion of both enterprises and employment, than in 2010 economies. Micro enterprises make up about 70% of enterprises in 2010 economies, and 78% in 2020 economies, but the contribution to employment is only 25% in 2010 economies as against 42% in 2020 economies (see section 3.3). It is probably reasonable to assume these figures tend to understate the importance of micro enterprises in developing economies in APEC, because there is a higher proportion of informal enterprises in the 2020 economies.

Table 7.8.1 shows that most APEC economies already require micro enterprises to register with authorities. This does not mean that small micro firms necessarily actually do register. Some economies estimated that as many as 25% of their micro enterprises are not registered.

Table 7.8.1 Economies requiring a micro enterprise to register with authorities

	Is there any official requirement that people running a micro-enterprise must notify authorities?
Australia	yes for GST purposes
Brunei Darussalam	yes all businesses are required to register their establishment with the Registrar of Companies
Canada	yes - via tax registration for income tax (incorporated and unincorporated)
Chile	yes -The formal enterprises must pay VAT and they have to register with SII (Internal Revenue Service)
China	na
Hong Kong, China	all businesses regardless of sizes, have to register under the Business Registration Ordinance (Chapter 310) in Hong Kong, China)
Indonesia	no response
Japan	no
Korea	Yes, owners of micro enterprise have to submit their business activities to National Tax Office, Local authorities and concerned organizations
Malaysia	All companies must register with a corporate register
Mexico	Yes, via Tax returns but difficult to track self employed
New Zealand	Yes, via VAT GST data reporting
Peru	No
Philippines	Yes - VAT returns are required, but there are some exemptions
Russian Federation	no response
Singapore	Yes
Chinese Taipei	Yes, people running a micro enterprise need to register the business with local authorities.
Thailand	Yes, every enterprise weather big or small must register with the Ministry of Commerce.
USA	Varies by state, but usually must register for tax purpose
Viet Nam	no response

Source: APEC Micro Enterprise Policy Survey - see Appendix E.

Micro enterprises are important in their own right, for two closely interrelated reasons:

1. they can provide a seed bed for entrepreneurship, and for the corporate growth and economic renewal needed to maintain international competitiveness;
2. they can provide an alternative to unemployment, and they can provide a means of alleviating poverty and social disparities.

Micro enterprise policy is thus of some importance, and especially in 2020 economies.

To get a better idea of the policy approach with respect to micro enterprises, the APEC Micro Enterprises Policy Survey was circulated to members in 2002 (See Appendix E). Amongst other things, this sought information on whether, as a matter of member government policy at national level, specific micro enterprise policies or initiatives have been adopted. Of the 21 economies, only 12 responded in full to the survey. Australia and USA provided responses to an ABAC questionnaire which focussed mostly on micro finance issues. China indicated that it did not distinguish micro enterprises as a matter of policy.

Table 7.8.2 summarises the results of the survey. No comparison can be made with policy in 1994/96 because there have been no previous surveys which have addressed micro enterprise issues in isolation from SME issues more generally. Most APEC economies have developed policy initiatives to assist micro enterprises, but these are usually not exclusive to micro enterprises (that is they can be accessed by small enterprises as well), and they are not necessarily operated at national level (as against a provincial or local level).

Table 7.8.2 Micro enterprise policy comparison

MICRO ENTERPRISE POLICY 2000/01	AUS	BD	CDA	CHL	PRC	HKC	INA	JPN	ROK	MAS	MEX	NZ	PNG	PE	PRP	RUS	SIN	CT	THA	USA	VN	%
Micro credit or finance	1	1	1	1		1		1	1		1	1		1	1			1	1	1		**70**
Clusters, cooperatives etc	1	1	1	1				1	1		1	1		1				1	1	1		**60**
Women	1		1	1				1			1	1		1	1			1		1		**50**
Ethnic Minorities	1			1							1	1		1	1			1		1		**40**
"Grow and Harvest"	1	1	1	1				1	1		1	1		1	1			1	1	1		**65**
Technical assistance	1	1	1	1		1		1	1		1	1		1	1			1	1	1		**70**

Source: APEC Micro Enterprises Survey (Appendix E)
Notes: "1" indicates that the economy has micro enterprise policies at an economy (or national, as against provincial or local) level in that area. A blank indicates "no", no response or no indication of what policy is.
% are based on 20 economies. PNG has not responded to any requests for this Profile, and was excluded. Indonesia, Malaysia, The Russian Federation, Singapore, and Viet Nam have not responded to the questionnaire. PRC indicated that it does not distinguish micro enterprises. The maximum "score" is thus 14/20 = 70%.

In section 7.3 it was shown that there seems to have been a sharp increase in the number of economies in APEC with policies aimed at micro finance since the early part of the APEC decade. Table 7.8.2 shows that of the 14 economies for which we have reasonable information, all now have in place micro credit or micro finance programs. However the amount of "micro" credit available seems to vary rather widely, so that in many cases these are really just existing financial support programs for SMEs which are also accessible by micro enterprises. They are not necessarily the 'true' micro credit programs which tend to be characterised by a focus of very small loans targeted at informal and disadvantaged borrowers.

Beyond APEC, micro enterprise support policies have tended to focus almost entirely on micro credit and micro finance, where the international agencies and banks (such as World Bank, US Aid, ADB) have been active. Much of this has been based on the apparent success of the programs such as the Grameen Bank in Bangladesh. Most of the international assistance seems to have gone to non-APEC economies, for example, in Latin America, and the Indian subcontinent. The consensus seems to be that these policies have generally been an effective means of development self help, and capacity building in disadvantaged areas, but that they need to be evaluated in a broader development context for them to be really judged effective (that is, they may not be any more cost

effective than using existing financial channels, but they do assist particular groups to achieve development that would be difficult otherwise). There are a number of best practice guidelines which are now available from these experiences, and these seem to focus on building sustainable financial infrastructures.

Within APEC there is also a broader focus of policy assistance for micro enterprise development, which includes policies on clusters, cooperatives, women, youth, ethnic minorities, technical assistance and "grow and harvest" (that is, helping micro entrepreneurs to grow or sell their business). Table 7.8.2 shows that almost all economies cite the existence of policies in all of these areas, but it needs to be noted that usually these are not policy initiatives exclusive to micro enterprises. They are initiatives accessible by SMEs more generally, but suited to or even designed for micro firms.

Which micro enterprise policies work best? Micro enterprise policy initiatives can be appropriate to a range of problems. For example, micro lending initiatives have been shown to be effective at cutting a vicious cycle of poverty and extortion by money lenders. Micro enterprises can provide a self-help safety net for unemployed in periods of structural dislocation. Thus, micro enterprise policy initiatives can be particularly appropriate to some problems and circumstances. At an APEC level, there are two main problems facing many of the developing APEC economies (the 2020 economies).

The **first** problem is that there are not enough SMEs, relative to the population. This issue is developed and analysed in sections 2.3 and 2.5. There is no doubt that all the APEC economies have a large pool of nascent entrepreneurs. However in some 2020 economies, these nascent entrepreneurs do not succeed in starting up businesses, and so there are less SMEs than there should be. In most developed economies there is one active entrepreneur managing an SME for every 20 people in the general population. However, in the developing economies in APEC, there are on average about 115 people per SME (see table 2.3.1). This means that the 2020 economies seem to be lacking when it comes to the "entrepreneurial engine". This in turn means that the 2020 economies are likely to be less flexible, less competitive and have less internally generated supply side growth. To redress this imbalance will require the creation and training of about 60 to 70 million more SMEs and entrepreneurs if the APEC Bogor goals are to be realised in a way that allows mutual prosperity.

The **second** problem is that even though there may be a lot of micro enterprises starting up, the impediments are such that they cannot grow beyond a micro size even if they seek to. Thus there are fewer small and mid sized firms, and less firms actively growing. In APEC 2020 economies there is a large pool of micro enterprises (employing less than 5 people), but the small and medium sized enterprises (employing between 6 and 100 people) tend to be under represented. It is difficult, for a raft of reasons (historical, social, political, financial, educational etc), for a start up firm to expand beyond a micro level in some economies. Yet, we know that the bulk of job and wealth creation usually seems to come from a small proportion of fast growing firms; they have to start somewhere, but some of them quickly grow from micro, to small to medium and then on to become large. In doing so, they can create a lot of jobs, wealth and growth. Microsoft is the archetype, having started with SBA start-up funds only 30 years ago. Could a new "Microsoft" start as a micro firm in Indonesia, or Mexico, or Thailand, and succeed, and then grow quickly? Perhaps it could, but the answer is probably it would find it much harder to do so than in the USA. Having a large pool of micro enterprises in an economy is no automatic guarantee of economic success; there also needs to be the social and economic infrastructure there to allow them to grow. If there is not that infrastructure, there tends to be a "missing middle". Tables 3.3.1 and 3.3.2 show that the 2020 economies in APEC have only 10.7% small firms and 1.09% middle sized firms, as against the 2010 economies having 20.9% and 5.3% respectively. This is evidence of a "missing middle" in the 2020 economies.

The role of micro enterprises, and the way they contribute to the solution of these two problems, can be explained as follows, in a three step process. As a rough rule of thumb, *If* an economy has:

> **step 1) a large pool of potential entrepreneurs, who have some basic skills and access to the resources required to start a business (such as micro finance, access to local markets, some legal and property rights etc).**
> Typically this pool of nascent entrepreneurs is quite large in all economies, though for cultural reasons or political reasons some economies do not take advantage of the "asset". Usually about one person in four will consider starting a business in the right circumstances in any

given year, though a much lower proportion actually get around to doing something more concrete than just thinking about it.

AND IF…

step 2) it is relatively easy, inexpensive and low risk for these nascent entrepreneurs to try a business idea, ***then*** **a large pool of micro enterprises (or SMEs) tends to emerge**.
This provides an alternative to unemployment and provides opportunities for people to escape poverty. This aspect is particularly important to women, youth, minority and disadvantaged groups.

AND IF…

step 3) the business, financial and policy infrastructure allows, *some* (about 25%) of these micro enterprises will tend to seek growth and about 5% will succeed in becoming fast growth firms which generate most of the net employment growth, and which create the next generation of larger firms.
This aspect provides the competitive and comparative advantage, and the dynamic industrial renewal needed to survive in a global economy. It is important to emphasise that not all micro enterprises or SMEs seek growth, but to recognise that some do, and that they are important to the overall dynamism of the economy.

Policies which successfully encourage the first two steps of the process are an effective means of poverty alleviation and of reducing unemployment. They also are a necessary, but not sufficient, condition for a dynamic and internationally competitive industrial structure, which tends to flow from the third step.

Which policies work best? The most effective general policy seems to be to create a business and social environment which encourages and facilitates:

- entrepreneurship, that is, the starting of new business ventures, so that there is a large pool of micro enterprises; and
- the growth of promising micro enterprises to become larger and more internationally oriented.

By this approach it is possible to address *both* the challenge of poverty and unemployment *and* the challenge of creating a competitive industrial structure. Policies to reduce poverty and unemployment can be *complementary* to policies seeking to increase growth, wealth and competitiveness. They may use different delivery channels, but they should *not* be seen as distinct, or in conflict. To make artificial distinctions may well be very counterproductive. For example, in the last decade, micro lending policies have been very effective at alleviating poverty and bringing women and minorities into the formal economy. However, much of the longer term potential of enterprise creation is likely to be lost unless attention is paid to removal of obstacles to growth of successful micro enterprises, and SMEs. The counterproductive effect is that undue emphasis on simply creating micro enterprises via micro finance can just lead to a "missing middle" problem. To balance the policy approach means looking at the continuum of financial services (from micro lending, to bank mortgage, to angel finance, to venture capital, IPO and so on) to ensure that problem areas are addressed. Similarly, issues like regulatory burdens, and access to management training may also need to be addressed and balanced relative to needs and resources.

Put another way, it makes sense to have policies which encourage a lot of micro enterprises to start up (a big garden seedbed) and then to provide them with the right environment and some fertiliser. Some pruning may also be required at times to weed out the weak and uncompetitive, and allow newer, stronger growth to emerge. How this is best done will vary depending on the circumstances and the priorities.

8. Program Budget Comparisons

Key Points - caution should be exercised in interpreting budget data and making comparisons. Caveats are set out in the text accompanying the tables below.

- ***Program budgets for nominated programs in 1994/95 were around an average of $USD 265 per SME, and there was not a large difference between 2010 economies ($USD 285) and 2020 economies ($USD 238). By 2001 this average allocation had grown to $USD 762, and a wide gap had opened between 2010 economies ($USD 907) and 2020 ($ USD 179).***

- ***However there were some large differences between economies. For example, in 1994 China's expenditure per SME was only $USD 0.05c, Indonesia's was $USD 0.15c, and Thailand $USD 12.66. In contrast, Hong Kong China nominated budgets of $USD 1084 and Korea of $USD 988 per SME. Budget figures for most of these economies could not be obtained for 2001, but there are still some marked differences.***

- ***About 85% of average budget is allocated to three areas: finance, technology and HRD. There seems to be shift in both 2010 and 2020 economies to channeling more assistance via financial programs, rather than specific allocation on HRD or technology.***

Table 8.0.1 SME Program Budget Comparisons 1994/95 and 2000/01

	1994/95 nominated budget total in millions of local currency (1)	1994/95 nominated budget in millions USD (1)	budget per SME in USD 1994/95 for all SMEs (2)	2000/01 nominated budget total in millions of local currency (1)	2000/01 nominated budget in millions USD (1)	budget per SME in USD 2000/01 for all SMEs (2)
Australia	417	304.82	402.62	2236.2	1300	1169.27
Canada	171.4	125.48	145.44	1400	946	1022.64
Chile	25	25.00	0.00	47240.837	87.5	175.05
China	3.5	0.41	0.05			
Hong Kong, China	2329	301.33	1084.38	7806	1002	3431.69
Indonesia	3901.8	1.81	0.15			
Japan	97267	950.80	146.63	31213	289	47.13
Korea	2070.6	2070.60	988.52	968900	856	317.15
Malaysia	0.015	0.01	0.00			
Mexico	77.5	22.93	189.38	1135.92	120	42.04
New Zealand	14.9	8.84	55.39	121.51	55.2	287.67
Peru	39.5	0.00	0.00			
Singapore	6	3.93	124.87			
Chinese Taipei	762	28.80	36.38	34218	1095	1042.50
Thailand	20.14	0.80	12.66			
USA	0	0.00	0.00	484.1	484	84.93
AVERAGE			**265.54**			**762.01**
average 2010			**285.10**			**907.61**
average 2020			**238.15**			**179.59**

Notes and sources: 1994/5 Based on responses to APEC (1995a) Survey on Best Practices for SMEs. Note that in the Best Practices Survey, economies were not asked to provide budget data for *all* programs, but only for those programs they regarded as best practice, so figures probably underestimate the actual budgets. Not all economies provided budget data for all the programs they nominated. Some budget figures are estimates and some may also relate to programs which apply to large firms.
2000/01 Based on APEC SME Policy Questionnaire (Appendix C). Not all economies could provide data requested.
(1) conversion rates are based on average OANDA interbank rates for the period 1 January 1994 to 1 January 1995. These are set out in the table below. Note that some economies provided data in USD, so no conversion was required.

(2) Based on the budget figure converted to USD, divided by the total estimated number of non agricultural SMEs in 1990 as set out in table 2.1.1. The reason for using 1990 figures is that these are more complete than 1996 figures. Note that this figure does NOT give the amount of money received by SMEs using that program, which will always be higher. It is simply a statistic which allows some broad comparison.

Conversion rates used in table 8.0.1

	1994/5	2000/1
Australia	1.368	1.72
Brunei Darussalam		1.725
Canada	1.366	1.48
Chile	1	539.75
China	8.575	8.279
Hong Kong, China	7.729	7.79
Indonesia	2160	8419
Japan	102.3	107.87
Korea	1	1131.5
Malaysia	2.62	3.8
Mexico	3.38	9.466
New Zealand	1.686	2.2
PNG		2.787
Peru		3.489
Philippines	26.59	44.36
Russian Federation		28.17
Singapore	1.527	1.725
Chinese Taipei	26.46	31.26
Thailand	25.15	40.21
USA	1	1
Viet Nam		14177

Sources: OANDA www.oanda.com
Korea and Chile provided data in USD for 1994/5
Blanks in 1994/5 indicate those economies did not provide budget figures

The reason for attempting a comparison of budget allocations is that *all* APEC governments seek to provide support to SMEs, and to make SMEs more globally competitive (see section 7). How they go about doing this, where they put the emphasis, and how much they spend in doing it is a matter of some interest. Ideally it should be possible to get reasonably comparative figures which at least give a rough guide to:

- the approximate amount of money provided to support SMEs by each economy, expressed in standard terms (per SME, and in the same currency);
- the approximate relative fiscal allocations to the main policy areas of interest in APEC (information access, technology, HRD, finance, market access, women, and administrative burden).

Making such comparisons is not all that easy, and a number of factors need to be considered:

Currency conversion. Although an increasing proportion of APEC's SMEs compete internationally, program budgets are still usually decided in local currency terms. This then requires currency conversion. There has been some significant currency volatility in the past decade, especially since 1997, and some idea of these changes can be seen in the conversion table above. For example, the average conversion rate for Indonesia over the period has moved by a factor of 3.89 (or the currency has devalued against the USD to nearly 25% of its 1995 value). This distorts some of the budget allocations in purchasing power terms in some economies.

Infrastructure overheads. Specific budget allocations for programs do not usually take into account the costs of ongoing administration. Some economies have continuing bureaucracies which are not necessarily included in program budgets. Allocating these to a program budget is often difficult.

Structure of the State. Some economies have several tiers of government (national, state, provincial, local) which provide SME related programs. In some economies the industry associations and chambers of commerce are more closely related to the State and have budget support from government as well.

Accessibility to programs. Not all programs are exclusively for SMEs, and even if they are, the definition of SMEs for program access purposes can vary quite a lot from that used in section 1.3 for statistical purposes.

Standardisation for different size of the economy. Some economies have many more SMEs that others and their budget allocations are understandably greater in absolute terms. To get a relative or comparative figure it is necessary to standardise. One way to do this is at program specific level; that is to divide the budget allocation for a program by the number of firms that have used that program. However, this figure is difficult to interpret for more than one program. The approach adopted here is to divide program expenditure by the total number of non agricultural SMEs to obtain a standard relative statistic. This does not mean that each SME actually receives that amount.

Differing development needs and stage of development. Just because one economy has a higher (or lower) budget allocation per SME does not necessarily mean very much. Some account must be taken of the relative stage of development, and the development needs of its SMEs.

Expenditure and Budgets. Budget figures are usually easier to obtain than actual expenditure figures; the former are usually a figure brought down as part of an appropriation bill or broader fiscal budget, and are easily accessible, while the latter require accounts and audits and so take longer to get. Not all budgets are spent, while others may be overspent.

Survey data. A final consideration that is important in interpreting tables 8.0.1, 8.0.2, and 8.0.3 is that the 1994/5 data and the 2000 data are drawn from different information requests. The 1994/5 information is mostly based on the survey of Best Practices carried out by Japan (APEC (1995a)). This survey sought information about programs nominated as best practice. It did not seek to cover the same range of programs for each economy. However, since most economies nominated their larger and more prominent programs, and since most programs cover the areas of HRD, technology, and finance, there is still some comparability. The 2000 data is based on the APEC SME Policy Questionnaire, which is set out in appendix D. This does permit some comparability, but not all economies responded with the requested information.

Subject to the above considerations, table 8.0.1 is interesting in that it shows that the difference in average total budget allocation per SME in 1994/5 was not that different for 2010 economies ($USD 285) relative to 2020 economies ($USD 238). However there appears to be a huge range between the top (Hong Kong China and Korea) and the bottom (China and Indonesia). Only part of this can be explained by the considerations set out above. Since China and Indonesia have together about 54% of APEC's SMEs this is a matter of major importance.

On the available data for 2000/1 there is a much bigger disparity between 2020 and 2010 economy budget allocations per SME. The 2010 economies had an average allocation per SME of $USD 907, while 2020 economies allocated less than one fifth of this, or about $ USD 179. Note that this does not mean that each SME actually received this amount. Many of the 2020 economies did not provide budget data for the survey in 2001, and so the figure of $ USD 179 almost certainly overstates the resources being directed to SMEs in 2020 economies. It is thus difficult to make a valid comparison between 1994 figures and 2000/1 budget allocations.

The data in table 8.0.2 and 8.0.3 show that in 1994/5, and again in 2000/1, the main fiscal focus of SME programs was on supporting services to SMEs in the areas of finance, technology and HRD; on average these three make up about 85% of the total nominated budget. However the emphasis varies quite a lot between 2010 and 2020 economies:

- The 2010 economies tended to put more emphasis on technology (which made up about 40% of their average budget in 1994, falling to about 20% in 2001) and HRD (33% in 1994 falling to only 12% in 2001). By 2001, the bulk of the budget was going to providing financial support in some form (47% in 2001, as against 23% in 1994).

- The 2020 economies put more emphasis on finance (33% in 1994, and 87% in 2001) and market access (about 30% in 1994 falling to zero in 2001, though this figure is biased by individual economies such as Thailand and Malaysia), and on technology (14% in 1994, falling to 8% in 2001).

What *seems* to be happening is a shift in the way resources are channeled to SMEs. There seems to be a shift from direct allocation for specific purposes (such as training or technology) and more toward providing general financial support which may allow SME managers themselves, or their advisers and expert financial providers, to make the assessments and decisions as to where money can be best spent.

Table 8.0.2 Comparison of Budget Allocations by Main Program Area 1994/5
percentage of funds allocated to each area

	information access	finance	technology	HRD	market access	women and admin burden
Australia	0.5	63.3	10.6	25.7	0.0	0.0
Canada	8.8	25.9	55.7	0.0	0.0	9.7
Chile	0.0	0.0	100.0	0.0	0.0	0.0
China	0.0	0.0	57.1	42.9	0.0	0.0
Hong Kong, China	0.0	0.0	11.4	88.6	0.0	0.0
Indonesia	0.0	76.9	23.1	0.0	0.0	0.0
Japan	0.0	0.0	95.8	4.2	0.0	0.0
Korea	0.0	66.8	22.6	1.0	9.6	0.0
Malaysia	0.0	0.0	0.0	0.0	100.0	0.0
Mexico	0.0	0.0	0.0	100.0	0.0	0.0
New Zealand	0.0	49.7	0.0	50.3	0.0	0.0
Peru	8.9	91.1	0.0	0.0	0.0	0.0
Singapore	0.0	0.0	16.7	83.3	0.0	0.0
Chinese Taipei	0.0	45.9	39.2	14.8	0.0	0.0
Thailand	0.0	0.0	0.0	13.2	86.8	0.0
AVERAGE	**1.21**	**27.98**	**28.81**	**28.26**	**13.09**	**0.65**
average 2010	**1.15**	**23.10**	**41.17**	**33.36**	**0.00**	**1.21**
average 2020	**1.27**	**33.55**	**14.69**	**22.44**	**28.06**	**0.00**

Notes and sources: Rows sum to 100%. Averages at bottom of table are simple unweighted averages of the non zero values in column above. These rows also sum to 100%. See sources for table 8.0.1

Table 8.0.3 Comparison of Budget Allocations by Main Program Area 2000/2001
percentage of funds allocated to each area

	information access	finance	technology	HRD	market access	women and admin burden
Australia	0.04	0.00	96.06	0.313	3.49	0.1
Canada	0.00	100.00	0.00	0	0	0
Chile	0.12	9.41	40.38	14.46	31.4	4.2
Hong Kong, China	0.00	73.02	19.29	7.686	0	0
Japan	2.08	0.96	3.46	41.2	52.3	0
Korea	3.36	87.44	8.16	1.032	0	0
New Zealand	2.06	31.11	1.23	8.559	53	4
Chinese Taipei	0.00	87.38	10.23	2.341	0.05	0
USA	0	72.84	0	21.48	1.03	4.6
AVERAGE	**0.9**	**51.4**	**19.9**	**10.8**	**15.7**	**1.4**
average 2010	**0.5**	**46.8**	**21.3**	**12.0**	**17.7**	**1.6**
average 2020	**3.4**	**87.4**	**8.2**	**1.0**	**0.0**	**0.0**

Notes: see notes to table 8.0.1 and 8.0.2

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USA Federal Reserve Board (2001) Financial Services Used by SMEs, 1997 Survey.

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USA SBA (various years), The State of Small Business, A report of the President, United States Government Printing Office, Washington DC.

USA, Trade Promotion Coordinating Committee (2002), The 2002 National Export Strategy, Report to the US Congress, Washington DC.

Appendix A Web sources for statistical information on SMEs in APEC

Compiled by Chris Hall
100231.1327@compuserve.com
PECC SME Network Leader

General

Admini Net
http://www.admi.net/world/sme/

OECD list of national contact points for SMEs
http://www.oecd.org/dsti/sti/industry/smes/index.htm

UN - national statistical agency links
http://www.un.org/depts/unsd/sd_natstat.htm

World Bank Statistics - data query
http://www.worldbank.org/data/
http://devdata.worldbank.org/data-query/

ILO Labour employment database
http://laborsta.ilo.org/cgi-bin/broker.exe

European SMEs
http://europa.eu.int/comm/eurostat/Public/datashop/print-catalogue/EN?catalogue=Eurostat&product=SME-EN

Internet usage statistics worldwide, and by region and economy
http://www.commerce.net/research/stats/wwstats.html

APEC

APEC Secretariat
http://www.apecsec.org.sg/

Australia

ABS Australian Bureau of Statistics - SME information is only available to subscribers
http://www.abs.gov.au/

Brunei

Definitions and overview for 1997
http://aeup.brel.com/sme/index.html

http://www.brunet.bn/org/bsmehp/brunei/sme/smesme.htm

Canada

bankruptcy statistics
http://strategis.ic.gc.ca/SSG/br01011e.html

bank loans to SMEs
http://strategis.ic.gc.ca/SSG/rd00392e.html

Statistics Canada CANSIM II Database
http://cansim2.statcan.ca/

Chile

Chile - IADB SME data 1996
http://www.iadb.org/sds/SME/publication/gen_167_424_e.htm

http://www.iadb.org/sds/doc/ChileSME.pdf

China

China Yearbook 1999
http://www.stats.gov.cn/yearbook/ml/1999_e.htm

Hong Kong China

Definition and basic statistics
http://www.sme.gcn.gov.hk/english/smehk_b.htm

Indonesia

BPS - Industrial Census 1996 - number of firms by size and industry
http://www.bps.go.id/census/se/table5.shtml

BPS - Large and medium scale manufacturing
http://www.bps.go.id/statbysector/manuf/ibs/

US AID Partnership for growth papers
http://www.pegasus.or.id/public.html

Japan

JSBRI - SME whitepapers online
http://www.jsbri.or.jp/E/jsbri_or.htm

Japan - summary SME statistics
http://www.chusho.meti.go.jp/english/basic/japanese_sme1.html

JSBRI
http://www.jsbri.or.jp/E/jsbri_or.htm

Korea

Summary statistics on SMEs SMBA (Small and Medium Business Administration)
http://www1.smba.go.kr/human/english/e_index.htm

Korea's SMEs preparing for the 21st Century
http://www.smba.go.kr/english/Progress-report.html

Malaysia

SMIDEC (Small and Medium Enterprises Development Corporation)
www.smidec.gov.my

Mexico

Mexico -INEGI statistics for number employed by size class
http://www.inegi.gob.mx/economia/ingles/fieconomia.html

SME statistics for 1993
http://www.iadb.org/sds/doc/MexicoSME.pdf

New Zealand

Structure and dynamics of NZ SMEs
http://www.med.govt.nz/irdev/ind_dev/smes2/index.html

Peru

IADB profile on Perus
http://www.iadb.org/sds/doc/PERU.pdf

Philippines

Philippine Statistics - 1995 Industry Census
http://www.census.gov.ph/data/sectordata/in950001.txt

2000 Census
http://www.census.gov.ph/data/sectordata/2000/establishment00.html

Russian Federation

Russian SME Resource Centre
http://www.rcsme.ru

Russian SME Resource Centre - Statistics on SMEs in Russia
http://docs.rcsme.ru/eng/RC/RC-publications/Stat/Stat-99-e.htm

SMEs in Russia 1998 Report
http://docs.rcsme.ru/eng/RC/Statistics/Statistics-RF-SME-Jun98

Singapore

PSB - Definition SME
http://www.psb.gov.sg/sme/definition/index.html

SME statistics
http://www.psb.gov.sg/statistics_faq/statistics/local.html

start up and exit rates
http://www.singstat.gov.sg/PUBN/formation.html

Chinese Taipei

MOEA 1998 White Paper on SMEs - table of contents with links
http://www.moeasmea.gov.tw/wpContents.html

MOEA ROC's SMEs ready for next millenium (2000)
(gives overview of the development of SMEs in Chinese Taipei, policy, statistics etc)
http://www.moeasmea.gov.tw/english/html/%E9%A2%A8%E6%A0%BC%E9%A0%81/next_mill/next_mill.htm

TIER
http://www.tier.org.tw/APECC/hotnews/Discussion_Papers/ctasc011.html

Thailand

Industrial Census 1997
http://www.nso.go.th/eng/stat/indus/indus.htm

http://www.smethai.net/new/

R C Sevilla SME Policy in Thailand (2000)
http://www.mahidol.ac.th/mahidol/pr/sme.pdf

USA

USA Small Business Administration
http://www.sba.gov/library/reportsroom.html

SBA Small Business Statistics
http://www.sba.gov/advo/stats/#Firm
http://www.sba.gov/advo/stats/data.html

The State of Small Business - annual report of the President
http://www.sba.gov/advo/stats/ec_state.html

minority- and women-owned businesses,
http://www.census.gov/csd/mwb/

Viet Nam

Definitions and overview 1997
http://aeup.brel.com/sme/sme19.html

World Bank - statistics
http://www.worldbank.org.vn/vn_pillars/appendix/appe_t21.htm

household enterprises in Viet Nam
http://www.worldbank.org.vn/data_pub/reports/Bank1/prwp/2773.pdf

Appendix B - The Author

Dr Chris HALL has had extensive experience in the internationalisation of SMEs in Asia, Japan and Europe. Examples over the last decade are below. He is currently at the Macquarie Graduate School of Management, Macquarie University, Australia
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Major projects on the internationalisation of SMEs

- **APEC SME Portal Hub (2002)** research and development of an information hub website, and recommendations for improvements in member economy websites to improve access for SMEs
- **APEC SME Profile (2001 - 2)** Review of profile of SMEs in APEC from 1990 to 2000.
- **PECC Assessment of APEC Action Plans (1998)**
- **PECC Review of ABAC Recommendations to APEC (1997)** Review of the MAPA and the APEC SME PLG activity in achieving ABAC's recommendations.
- **APEC Techno Forum Project (1996/7),** Trial program to set up electronic forum for technologically oriented SMEs in APEC.
- **APEC Statistical Indicators for SMEs (1996/7),** feasibility of establishing statistical indicators in APEC.
- **APEC Business Forum (1996),** Meeting of APEC business leaders, and associated projects.
- **UNCTAD (1996) FDI Facilitation in Asia.** Project focus on role of FDI, especially in SMEs, as an engine of growth for development. Project covered Indonesia, Myanmar, Viet Nam, Philippines, PRC, Chinese Taipei, Korea, and Singapore.
- **Industry Canada with support from Trade and Industry Philippines (1996) APEC and SMEs, overview of findings issues and gaps.** Project drew together existing SME related work in APEC into a policy framework as a basis for future directions in APEC.
- **Japan Small Business Research Institute (1995) Assessment of the Feasibility of Establishing an International Network of SME Researchers in APEC.** Project covered Indonesia, Australia, Philippines and Thailand.
- **MEIC Japan (1994) Examination of policies and impediments to cross border access of SMEs in Asia.** Project covered Japan, Australia, New Zealand, PRC, Chinese Taipei, Korea, and Indonesia
- **OECD Project on the Globalisation of Economic Activities and SME Development (1993 - 1995)** Project coordination and synthesis, in consultation with the OECD secretariat, of studies in 18 member countries and 8 Asian countries, examining the pattern of globalisation of SMEs and the national and international policy implications.
- **DITARD (Department of Industry Technology and Regional Development) Australian country study in the OECD project on Globalisation of Economic Activities and SME Development (1993)**
- **MEIC Japanese country study in the OECD project on Globalisation of Economic Activities and SME Development (1993)**
- **New South Wales Department of Business and Regional Development (1993)** Study of specific policy issues arising from globalisation of SMEs in NSW
- **Japan Economic Foundation, Globalisation country studies in Asia (1993)** Coordination of study of role of SMEs and key policy issues in Indonesia, Singapore, Thailand, Malaysia, Peoples Republic of China, Chinese Taipei, Hong Kong, Korea and Philippines

Invited expert to international expert meetings;

OECD EUROSTAT combined meeting on SME statistics Paris May 1991
OECD SME globalisation project Paris May 1992
OECD SME globalisation project Paris December 1992
OECD Local and regional employment creation Paris December 1992
OECD SME globalisation project Paris February 1993
APEC SMEs and Export Development Shen Zhen July 1993
OECD SME globalisation project Paris October 1993
APEC Economic Development and Human Resource Development Seoul, December 1993
OECD Symposium on globalisation Paris December 1993
APEC Experts Meeting on SMEs Jakarta, 1994
APEC 2nd Experts Meeting on SMEs, Jogjakarta, Indonesia, September 1994

OECD Working party on SMEs Cordoba, Spain, September 1994
APEC Ministerial Meeting for SME Ministers, Osaka November 1994
OECD Working Party on SMEs, Paris March 1995
OECD Workshop on SMEs and Employment Innovation and Growth, Washington DC, June 1995
APEC Policy Level Group, Canberra, August 1995.
APEC Meeting for SME Ministers, Adelaide, September 1995
APEC Symposium on SME Research Networking and Venture SMEs, Nagoya, October 1995
APEC Symposium on HRD for SMEs, Taipei, November 1995
APEC Symposium on ACTETSME, Manila, March 1996
APEC SME Policy Level Group, Santiago, April 1996.
APEC Credit Guarantee Systems Symposium, Taipei, September 1996
APEC SME Ministerial Meeting and SME Policy Level Group Meeting, Cebu, September 1996
APEC Business Forum, meetings, Manila, June, July, August and November 1996
OECD Experts Meeting - High Growth SMEs Project, Paris September 1996
APEC HRD Working Group, Sydney, January 1997
APEC SME PLG, Mexico City, May 1997
APEC Congress on Entrepreneurship, Bangkok, July 1997
APEC SME PLG and Ministerial Ottawa September 1997
UNCTAD Conference on FDI by SMEs in Asia, Kunming, 1997
OECD SME Working Group, Seoul, October 1997
APEC Seminar on Market Access for SMEs, Taipei, November 1997
USAid ACEAES Conference on Sustaining Economic Growth in Indonesia, Jakarta, December 1997
APEC Technomart II Seminar, Taipei, January 1998
APEC SME Ministerial, Kuala Lumpur, September 1998
APEC SME Ministerial and PLG, Christchurch NZ, April 1999
APEC SME Ministerial and PLG, Brunei, June 2000
OECD Business symposium and SME Ministerial, Bologna, June 2000
APEC SME Ministerial Shanghai August 2001
APEC SME WG Vina Del Mar Chile April 2002
APEC SME and WTO Seminar Qingdao China June 2002
APEC SME WG and Ministerial, and High Level Meeting on Microenterprises, Acapulco, September 2002

Appendix C - Information Request to Economies - June 2001

This draft report is being circulated to all APEC economies for comment and data input. This draft will be presented at the SME WG meeting in HK in June 2001. The revised report will be presented to the Ministerial meeting in Shanghai in August 2001, and then finalised by end 2001. Data for this DRAFT report has been drawn from readily available public sources, and from data provided by economies responding to a previous preliminary information request.

Two types of information are being requested:

1. **General research and background information.** A list of general questions and information sought is on page 6. Any research papers, official policy papers, surveys, consultant reports etc that might help throw some light on these questions and issues would be appreciated.

2. **Specific statistical information.** The specific data being sought is that missing in the tables in sections 1 - 7 of the this draft report, and summarised immediately below. These data will assist in allowing comparisons and analysis of trends. In most economies these data *were* available in 1990, so hopefully they will also be available for 1996, and for later dates. The data required are set out as follows. If these data are NOT available, can you please confirm that they are not available. It is understood that there are many problems in obtaining and comparing statistics between economies, and some economies have more detailed statistical and quantitative information than others.

SECTION 1
Please check that the definitions are correct for your economy

SECTION 2
Table 2.1.1 Numbers of non agricultural SMEs in APEC
Please supply any data for which there is a blank or "?" in the cell. It would be greatly appreciated if you can provide a series, by year, of the total number of non agricultural SMEs and total number of enterprises or establishments, preferably broken down by size class and by industry.

SECTION 3
Table 3.1.2 Employment by non agricultural SMEs in APEC, and Supplementary Table - 3.2.1b Total Private Sector Non Agricultural Jobs (PSNAJ)and SME Contribution (including non employing)
Please supply any data for which there is a blank or "?" in the cell. It would be greatly appreciated if you can provide a series, by year, of the total number of people employed in non agricultural firms (establishment or enterprise data), preferably broken down by size class (eg 0 - <5, 5 <19 , 20 <100, large firms etc) and by major industry grouping. If possible, please distinguish non employing "jobs" - ie those sole proprietors who do not actually employ someone.

Table 3.3.1 Contribution of micro, small, and medium SMEs to private non agricultural employment and number of firms or establishments in APEC in comparable terms
This table requires data in Table 3.1.2 (employment) plus data in Table 2.1.1 (on establishments or enterprises) to be broken down by size classes (micro 0 - <5, small 5 <19 , medium 20 <100, and large >100). Please provide this, if it is possible, for at least 1990, 1996 and latest available.

Table 3.5.1 Contribution to SME employment by major industry sectors percentages.
This table requires the data in Table 3.1.2 to be broken down by major industry category for those cells which are blank. Note that Primary is defined as agriculture, fishing mining etc. Services is a residual figure. It is helpful if you can provide raw data for employment broken down by SMEs and large firms, for major industry categories.

Table 3.6.1 Percentage of sales by SMEs
Please supply any data that is available on the contribution of SMEs to sales. This might have to be broken down by industry grouping (eg manufacturing).

SECTION 4

Table 4.3.1 Entry, exit and bankruptcy rates percentages
If they are available, please supply figures for each year between 1990 and the latest year, the number of firms starting up, and the number of firms exiting, and the number of bankruptcies.

SECTION 5
Any additional information or data on trade and FDI by SMEs would be appreciated

SECTION 6
Any additional information in any of these areas would be appreciated.

SECTION 7

The following questions are DRAFT questions, and suggestions would be welcome on how to refine them, or add or delete questions so that a simple but robust comparison can be made of policy programs in APEC across economies and across time (from the early 1990s to the late 1990s and early 21st century). Once refined (after the SME WG meeting in June 2001) this will be sent to each economy for completion.

The APEC SME Policy Questionnaire is included in Appendix D, along with responses from economies.

Questions and Information Sought

Any assistance in providing information on any of the following would be greatly appreciated.

indicator	Questions - and information sought
1. Statistical definitions	Summary of definitions used for statistical and policy purposes
2. SME Population Profile	How many SMEs and large firms are there in the economy? Has the proportion of SMEs relative to large firms changed? Has there been any change in the ratio of number of SMEs per head of population?
3. Distribution by size	What is the distribution by size class of firms? Have there been any changes or trends in the overall size distribution (eg an increase in the proportion of smaller firms)?
4. Distribution by industry	What is the distribution of firms by broad industry category? Has there been any trend or changes in the distribution by broad industry category (eg more SMEs in service sector etc)?
5. Detailed industry distribution	Are there any industry segments where SMEs tend to be more concentrated in your economy (especially if these are sensitive segments for trade liberalisation in APEC)?
6. Contribution to employment	What is the contribution of SMEs to total employment? Has there been any change or trend in the contribution of SMEs to total employment? (For example were SMEs affected proportionally more by the Asian Financial Crisis?)
7. Contribution to employment by size	What is the contribution of different size classes of firms to total employment? Has there been any trend or changes in the contribution of different size classes (for example a rise in the relative importance of smaller firms?
8. Contribution to employment by industry	What is the relative contribution of SMEs and large firms in broad industry categories? Has there been any shift toward SMEs having proportionally more or less employment in services, manufacturing, agriculture etc?
9. Contribution to output	What is the contribution of SMEs to economic output (measured by GDP, turnover, sales etc) relative to that of larger firms? Has this changed or is there any trend in the relative contribution of SMEs to overall economic output?
10. Contribution to output by size	What has been the contribution of different size classes of SMEs to economic output (measured by GDP, turnover, sales etc).
11. Productivity	Is there any evidence on productivity trends in SMEs vs large firms - what is the output per person employed in large firms relative to SMEs (or SMEs of different sizes)?
12. Contribution to exports	Is there any evidence on productivity trends in SMEs vs large firms - what is the output per person employed in large firms relative to SMEs (or SMEs of different sizes)?
13. Contribution to FDI	Contribution of SMEs to Exports, either directly or indirectly (eg as subcontractors to major export oriented firms
14. Amount of FDI received by SMEs	Foreign direct investment (FDI) abroad by value and by number, by large firms and SMEs Eg is there any evidence of changes in the level of FDI activity by SMEs
15. Start up rates	Start up rates - ie the number of new SMEs being registered. Has there been any change in start up rates? Has there been any attempt to increase start up rates?
16. Start up rates by gender	Start up rates by gender (ie women business start up rates). Has there been any increase in the number of businesses started up by women?
17. Failure rates	Failure rates - eg bankruptcy rates, by size of firm. Have failure rates changed much in the last few years, have SMEs tended to have higher or lower failure rates? (especially during the Asian crisis)

18. Costs and competitiveness	Any reports, studies or evidence on the operating costs of SMEs relative to large firms or over time -eg wage rates in SMEs, COGS. Has there been any trend in operating costs (eg as a broad indication of changing competitiveness)?
19. Finance	Any reports or studies on the availability of finance or on impediments and access to finance by SMEs (eg has there been any change in the amount of venture capital available, how much micro finance is made available etc)
20. E commerce and the web	Any reports or studies on aspects of E-commerce and web use in the economy, especially by SMEs. Is it possible to identify the number of www. com addresses in your economy (ie with a domain address unique to your economy eg jp or au) and compare that with the total number of large firms to get a rough idea of the number of SMEs with websites?
21 Administrative burden	Any reports or studies on the level of administrative burden (eg compliance costs) on business, especially on SMEs, or…. …..any initiatives or efforts to reduce it, especially as it relates to SMEs.
22. Government SME Priorities	Any reports, or official position papers which identify the priorities for government action as it relates to SMEs
23. Impact of SME policy initiatives	Any major government led projects or initiatives to improve SME performance in key APEC areas, ie: 1. Human Resource Management 2. Technology and Technology Transfer 3. Access to Information 4. Access to Markets 5. Finance 6. Administrative Burden 7. Women especially if there is any evaluation of the effectiveness of these initiatives
24. Key Issues facing SMEs	Are there any key issues (social, economic or political) relevant to SMEs especially in relation to APEC and globalisation?

Appendix D - Questionnaire on Policy Comparisons

The following questionnaire seeks to establish a simple but robust comparison of SME policy programs in APEC across economies and across time (from the early 1990s to the late 1990s and early 21st century).

Could you please:
a) check the information contained in the DRAFT Profile of SMEs and SME Issues 1990 -2000 (section 7) and make any corrections;
b) complete the following as it relates to SME policy and programs in your economy in 2000 to 2001, and
c) return to the APEC Secretariat by end of July 2001.

This will permit inclusion in Draft 2 at the Shanghai Ministerial.

If there are any questions of how to interpret the questionnaire please contact Dr Chris Hall on 100231.1327@compuserve.com

Please return to

Fax 61 2 9973 1163 or 9973 2715
Or
email to
100231.1327@compuserve.com

ECONOMY:
NAME OF CONTACT LIAISON PERSON:

QUESTIONS - general policy thrust	YES	NO	If relevant, please indicate a) the approximate total annual budget (in your own currency) for programs in this area over the last year, and b) the approximate number of SMEs receiving assistance	Please indicate where additional information can be obtained (eg web links, policy documents etc)
Non discriminating policy Are policies designed in such a way as to NOT discriminate between SMEs and large firms?			not applicable	
SME discriminating policy Are policies designed to discriminate in favour (or against) SMEs or specific groups (eg affirmative action for minority or women entrepreneurs)			not applicable	
SME support programs Are any programs designed to meet special needs of SMEs (whether they discriminate or not)?			not applicable	
Targeted programs Are any programs targeted at any particular group of SMEs (eg SMEs as subcontractors to larger firms, "picking winners", export oriented SMEs, etc ?)			not applicable	
General competitive environment programs Are *most* programs intended to provide or support a business environment which encourages globally competitive SMEs?			not applicable	
SME basic act Is there a basic SME Act or "Magna Carta" which sets out obligations of govt to SMEs?			not applicable	
SME coordinating agency Is there an agency or administration within govt with the primary responsibility for SMEs?			not applicable	

QUESTIONS - information access	YES	NO	If relevant, please indicate a) the approximate total annual budget (in your own currency) for programs in this area over the last year, and b) the approximate number of SMEs receiving assistance	Please indicate where additional information can be obtained (eg web links, policy documents etc)
Is there a single point where people can go for advice and referrals on where to get information about govt regulations etc?			not applicable	
Is there a single portal or entry point for people seeking advice on govt regulations and requirements?				
Is there any govt support for providing firms (including SMEs) with access to intelligence and information of a non govt nature (eg market research, technical information etc)				

QUESTIONS Finance	YES	NO	If relevant, please indicate a) the approximate total annual budget (in your own currency) for programs in this area over the last year, and b) the approximate number of SMEs receiving assistance	Please indicate where additional information can be obtained (eg web links, policy documents etc)
Is there govt underwriting of credit guarantee for SMEs in domestic operations?				
Is there govt support (including credit guarantee) for SMEs engaged in exports?				
Is there govt support (tax concessions, pooled funds etc) for start up and venture companies?				
Is there govt support (subsidised or regulated interest rates, etc) for SMEs or small business generally?				
is there any govt supported program in place to provide micro finance to those (eg to ethnic or minority groups) seeking to start a business?				
Are SMEs given any concessional or favourable tax rates (eg special exemptions on certain taxes, reduced company tax rates etc)?				

QUESTIONS - technology	YES	NO	If relevant, please indicate a) the approximate total annual budget (in your own currency) for programs in this area over the last year, and b) the approximate number of SMEs receiving assistance	Please indicate where additional information can be obtained (eg web links, policy documents etc)
Does the government provide any support (tax concessions, access to public research institutions, public incubators etc) for basic research				
Does the govt provide support (incubators, underwriting, network or cluster support etc) for the commercialisation of innovations or start up of innovative companies?				
Does the govt provide any programs to assist SMEs to adopt information technology and better management systems				
Does the govt provide any programs to encourage the adoption of more efficient technology (eg pollution control, manufacturing processes etc)				

QUESTIONS HRD	YES	NO	If relevant, please indicate a) the approximate total annual budget (in your own currency) for programs in this area over the last year, and b) the approximate number of SMEs receiving assistance	Please indicate where additional information can be obtained (eg web links, policy documents etc)
Is there govt support (eg part payment, loans, facilities, trainers, facilitators etc) for training or consulting and advice to SMEs?				
Is there govt support (eg part payment, loans, advisors etc) for providing diagnostic services and advice to SMEs?				
Is entrepreneurship or business a *required* subject in pre university schooling?			not applicable	

QUESTIONS market access	YES	NO	If relevant, please indicate a) the approximate total annual budget (in your own currency) for programs in this area over the last year, and b) the approximate number of SMEs receiving assistance	Please indicate where additional information can be obtained (eg web links, policy documents etc)
Are there export advisory services that are available to firms at less than full market cost?				
Is there govt support (eg part payment, loans, training etc) for networking or cluster start up or cooperatives				
Are there business matching services provided by govt or supported by govt?				
Is there any legal process or protection for SMEs suffering from unfair competition, predatory activity etc from large firms?			not applicable	
Is there reciprocal recognition of intellectual property rights (patents, licenses, copyright, trademarks etc) already established in another economy?			not applicable	
Are govt agencies required to procure a proportion from SMEs?			not applicable	
Is there govt support for (financial support, infrastructure etc) for databases to allow large firms and subcontractors to exchange information and opportunities				
Are non-domestic SMEs (ie not registered in that economy) able to access govt procurement or govt sponsored networks (such as credit guarantee or subcontractor networks)?			not applicable	

QUESTIONS administrative burden	YES	NO	If relevant, please indicate a) the approximate total annual budget (in your own currency) for programs in this area over the last year, and b) the approximate number of SMEs receiving assistance	Please indicate where additional information can be obtained (eg web links, policy documents etc)
Is there a regular process for reviewing the amount of time and resources spent by firms (including SMEs) on complying with govt regulatory requirements ?			not applicable	
Is there a single reference number and a business register which limits the amount of repeat information that a firm has to input when completing govt forms?			not applicable	
QUESTIONS - women	YES	NO	If relevant, please indicate a) the approximate total annual budget (in your own currency) for programs in this area over the last year, and b) the approximate number of SMEs receiving assistance	Please indicate where additional information can be obtained (eg web links, policy documents etc)
Is there a legislative requirement that financial providers cannot discriminate on the basis of sex or ethnicity or age?			not applicable	
Are there any programs designed specifically to encourage start up/success of businesses owned by minorities or women?				

Appendix E - APEC Microenterprises Policy Survey

PECC in conjunction with Mexico and Chinese Taipei

Introduction and explanation

AT the 2001 Shanghai Ministerial Meeting, Mexico sought an extension of the *APEC SME Profile 1990 - 2000* project, to cover microenterprises in particular. **The purpose of this survey is to collate and compare information on microenterprises and microenterprise policy in APEC.** The results will then be incorporated into the final version of the *APEC SME Profile 1990 - 2000* to be delivered to Ministers in Mexico in August.

There is no common definition of "microenterprise" in APEC, but SMEs employing less than about 5 people (ie micro firms) make up about 75% of firms and employ about 25% of the people in APEC.

This survey

Efforts have been made to obtain as many statistics and as much information in the public domain as possible, so as not to burden economies with unnecessary information requests. However, there is not a lot of information available on microenterprises. **A summary table with the information obtained to date is set out at the end of this document.** If your economy is covered in that table it is not necessary for you to provide information in questions 1, 2 or 3 of the following survey, unless you find it to be incorrect or misleading. Similarly, if you have recently completed the ABAC Questionnaire on Funds and Support Schemes for Micro, Small and Medium Sized Enterprises in APEC, you do not have to supply the same information again.

The bulk of the survey is devoted to identifying Microenterprise policy and best practice experience in APEC. This has not previously been attempted.

Thank you for your cooperation. Can you please return the questionnaire by 15 May

Dr Chris Hall
PECC SME Network Coordinator

APEC Microenterprises Policy Survey

Please complete and return **by 15 May 2002** to

Dr Chris HALL
PECC SME Network Leader
email 100231.1327@compuserve.com
fax 61 2 9973 1163
37 Wandeen Rd
Clareville 2107
AUSTRALIA

ECONOMY:_____

QUESTIONNAIRE COMPLETED BY:
NAME:_____

CONTACT DETAILS
PHONE:_____

EMAIL:_____

1. Does your economy have a definition of what constitutes a microenterprise?
YES NO
If YES please give the definition.

2. Is there any official or unofficial estimate of the number of microenterprises (or of the number of enterprises employing less than 5 people, including non employing businesses).
YES NO If YES please indicate sources and estimates

	non agricultural microenterprises	agricultural microenterprises#
number		
source and date		

if data for agricultural Microenterprise is available and is important to your economy, it would be appreciated.

3. Is there any official or unofficial estimate of the contribution of microenterprises (or of the number of enterprises employing less than 5 people, including non employing businesses, or of the "informal" sector) to:
3.1 job creation (eg how many people are self employed on a part time or full time basis)
YES NO If YES please indicate sources and estimates

	non agricultural microenterprises	agricultural microenterprises#
contribution to jobs		
source and date		

3.2 GDP? or turnover
YES NO If YES please indicate sources and estimates

	non agricultural microenterprises	agricultural microenterprises#
contribution to GDP %		
source and date		

4. Is there any official requirement that people running a microenterprise must notify authorities? (for example, do they have to file a different tax return from individuals, or pay VAT or GST, or register the business with local authorities?) The purpose of this question is to see if there is any existing way of tracking the numbers of microenterprises in APEC
YES NO
if YES - please give a brief explanation

5. As a matter of government policy, has your government at *National* level, encouraged or implemented policies or programs or projects directed *specifically* towards microenterprise creation or support in any of the following areas in the last five or so years?

	please circle appropriate	If YES please give brief details of a) Name of project(s) or program(s) b) Where more information can be obtained c) approximate budget if possible
Micro credit or microfinance	YES or NO or YES but generally for SMEs not just Microenterprise	a) b) c)
Clusters, cooperatives etc	YES or NO or YES but generally for SMEs not just Microenterprise	a) b) c)
Women	YES or NO or YES but generally for SMEs not just Microenterprise	a) b) c)
Ethnic Minorities	YES or NO or YES but generally for SMEs not just Microenterprise	a) b) c)
"Grow and Harvest" (ie helping microentrepreneurs to grow, sell or capitalise their business)	YES or NO or YES but generally for SMEs not just Microenterprise	a) b) c)
Technical assistance (eg advice or access to: technology, accounting, etc)	YES or NO or YES but generally for SMEs not just Microenterprise	a) b) c)

6. Are there any microenterprise programs or projects which you think should be nominated as "best practice" - (that is programs or projects where your experience could assist other APEC economies in developing more effective microenterprise programs or policies)

If yes - could you please provide brief details of:

6.1 The Name of the Program/Project:

6.2 The objective(s) of the Program/Project:

6.3 The most appropriate person or department to seek more information about the project/program and the policy which led to it. (ie name, contact address/email)

6.4 If possible, the main reasons why it might be considered as best practice (ie the main lessons that can be learnt from it)

Summary of available data

	2 Microenterprise definition employees	3 % Jobs in micro enterprises <5 employees	4 % establishments in micro enterprises <5 employees	5 definitions used in columns 3 and 4
Australia	<5	25.9	69.9	non employing + 1 - 4
Brunei	<5			
Canada				
Chile	<4	40.6	82.1	1 - 4
China				
Hong Kong		31.1	86.8	1 - 9
Indonesia				
Japan		13.1	56.5	1- 4 does not include manufacturing below 4
Korea		31.2	72.7	1 - 4 does not include manufacturing, which starts at 5. Does not include non employing. Manufacturing and services only.
Malaysia				
Mexico	<15			
New Zealand		23	84	0 - 5
PNG				
Peru				
Philippines		38.9	90.7	1 - 5
Russia				
Singapore		7.1	67.4	S service <5, manufacturing not included
Chinese Taipei				
Thailand			79.0	1- 4
USA		5.2	60.5	0 - 4(does not include non employing)
Viet Nam				

Source: *APEC SME Profile 1990 - 2000 draft as at 25 March 2002 - statistical database*

Appendix F - Glossary of Terms

ACTETSME	APEC Centre for SME Technology Exchange and Transfer
ADB	Asian Development Bank
ALU	Average Labour Unit (Canada) calculated by taking the total payroll of a firm and dividing it by the average salary earned in that industry.
BIS	Bank of International Settlements
BoJ	Bank of Japan
BSMBD	Bureau of Small and Medium Business Development (Philippines)
CTI	Committee on Trade and Investment (APEC)
Ecotech	Economic and Technical Cooperation (APEC)
FDI	Foreign Direct Investment
IADB	Inter American Development Bank
IAP	Individual Action Plan (in APEC)
IFC	International Finance Corporation
ILO	International Labour Organisation
INEGI	Mexican National Statistics Office (Instituto Nacional de Estadística Geografía e Informática)
IPO	Initial Public Offering
ITU	International Telecommunications Union
JETRO	Japan External Trade Association
JSBRI	Japan Small Business Research Institute
JV	Joint Venture
KOTRA	Korean Trade Investment Promotion Agency
METI	Ministry of Economy Trade and Industry (Japan)
MITI	Ministry or International Trade and Industry (Japan)
MNC	Multinational corporation
MOEA	Ministry of Economic Affairs (Chinese Taipei)
NTB	Non Tariff Barrier
OECD	Organisation for Economic Cooperation and Development
RBA	Reserve Bank of Australia
SBA	Small Business Adminsitration (USA)
SMBA	Small and Medium Business Administration (Korea)
SME PLG	APEC SME Policy Level Group
SME WG	APEC SME Working Group
SMEA	Small and Medium Enterprises Agency (Chinese Taipei)
SMI	Small and Medium Industry
SMIDEC	Small and Medium Industries Development Corporation (Malaysia)
SOE	State Owned Enterprise (China)
SPAN	APEC SME Plan
TILF	Trade and Investment Liberalisation
TVE	Town and Village Enterprise
UNCTAD	United Nations Conference on Trade and Investment
VC	Venture Capital
WB	World Bank