

TRADE-ADJUSTMENT COSTS IN OECD LABOUR MARKETS: THREE ANNEXES

ANNEXES 1.A1, 1.A2 and 1.A3 to “Trade-adjustment costs in OECD labour markets: a mountain or a molehill?”

Chapter 1 of the OECD *Employment Outlook 2005*

The material presented in the following pages supplements that presented in Chapter 1 of the *OECD Employment Outlook 2005* (OECD, 2005a).¹ These three annexes supplement Chapter 1 as follows:

- Annex 1.A1 explains the methods used in Chapter 1 to classify manufacturing industry according to the intensity of international competition. Additional empirical results are also presented for differences in net employment growth according to the intensity of international competition.
- Annex 1.A2 summarises the methods used and key results obtained by 22 recent econometric studies of the impact of international trade on employment in OECD countries. The summary assessment of prior empirical research that appears in Section 2 of Chapter 1 draws upon this material.
- Annex 1.A3 supplements the discussion of broad policy orientations in Section 3 of Chapter 1 by providing a more detailed description of the types of policies that are used by OECD Governments to lower the adjustment costs borne by trade-displaced workers.

1 . These three annexes and the chapter that they supplement draw upon input that the OECD Directorate for Employment, Labour and Social Affairs provided to the OECD’s horizontal project on trade and structural adjustment (OECD, 2005b). Some of this material was originally prepared by Ricardo-Luis Tejada, who served as a consultant for that project.

ANNEX 1.A1

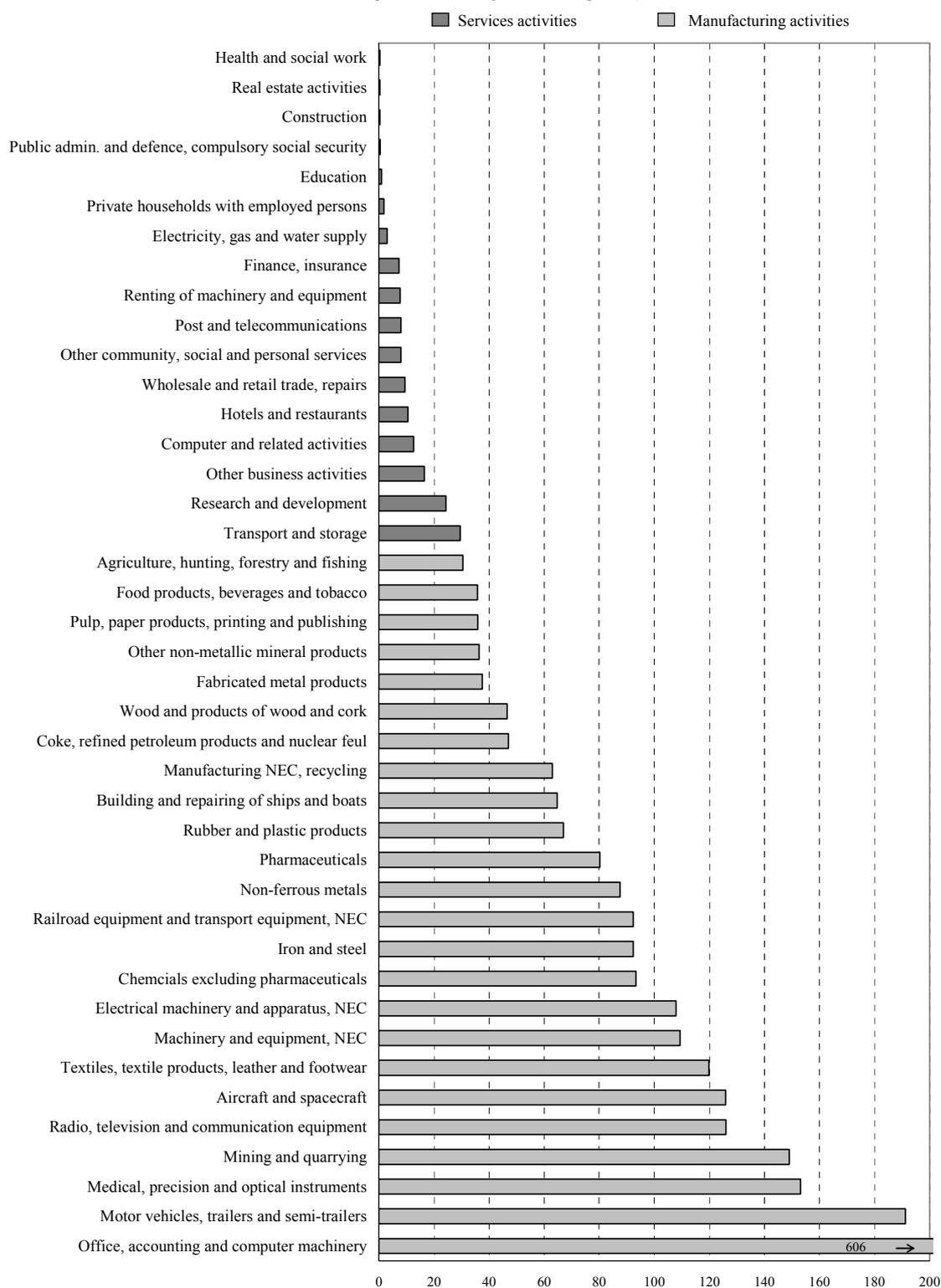
INTERNATIONAL COMPETITION AND EMPLOYMENT GROWTH FOR MANUFACTURING INDUSTRIES IN 15 OECD COUNTRIES, 1980-2000

This annex complements the empirical analysis in OECD (2005a), Chapter 1, Sections 1 and 2 in two ways. First, it explains the industry taxonomies that are used in the analyses of net employment changes at the industry level and trade-related job displacement (*cf.* Chart 1.2 in Section 1 and the analysis of ECHP data in Section 2). The second goal of this annex is to present the more detailed data on employment growth in manufacturing industries facing, respectively, low, medium and high levels of international competition, which underlie the summary presentation in Chart 1.2. As noted in Chapter 1, these net employment changes do not provide a reliable indication of the incidence of trade-related displacement. Nonetheless, they offer a useful reference point for the analysis of adjustment costs, since they provide an indication of the impact of trade on the industry-mix of employment.

For the purpose of analysing the impact of trade on the industrial composition of employment, an index of the intensity of international competition is calculated for detailed industries within the manufacturing sector. Although some service-sector workers are displaced by trade, this analysis focuses on job loss in manufacturing industries because that sector accounts for a large share of total trade flows (Ghose, 2003). Furthermore, trade flows are much higher relative to production in manufacturing (Chart 1.A1.1). An additional reason to focus on trade effects in manufacturing is that most of the prior research literature on trade adjustment costs (*cf.* Annex 1.A2, below) has focussed on manufacturing.

Chart 1.A1.1 **Exposure to trade is much higher in manufacturing than in services**

Trade relative to domestic production, average mid 1990s (percent)^a



a) The sum of imports and exports as a percentage of domestic production, as calculated from input-output tables. Averages for Australia, Canada, Denmark, Finland, France, Germany, Greece, Italy, Japan, the Netherlands, Norway, Spain, the United Kingdom and the United States.
Source: OECD Input-Output database.

Box 1.A1.1 Methodology used to classify industries by the intensity of international competition

In order to classify manufacturing industries according to the intensity of international competition that they face, two different indices of international competition were constructed using industry-level data on trade flows. These indices correspond to the potential impacts of trade flows on, respectively: i) industry employment levels (*i.e.* net employment changes); and ii) trade-related displacement (*i.e.* gross job losses). This approach differs from that taken in Kletzer (2001), where a single index (the percentage increase in the import-penetration ratio) is used to classify industries for the analysis of both net employment changes and job displacement rates.¹ However, the method used here follows this earlier study in most other respects.

The first or *net* index of international competition (ICNET) is intended to provide an indication of the extent to which international trade flows can be expected to create downward pressure on industry-level labour demand, so as to result, *ceteris paribus*, in a net decrease in industry employment. This index is based on the increase in net-import-penetration ratios and is calculated as:

$$\text{ICNET}_i^c = \% \Delta \left[\frac{M_i^c - X_i^c}{(P_i^c + M_i^c - X_i^c)} \right]$$

Where M = imports, X = exports and P = domestic production at current prices. This indicator shows for each country (indexed by c), the growth rate for the excess of imports over exports in each industry (indexed by i), relative to total domestic demand in that industry.²

The second or *gross* index of international competition (ICGROSS) is intended to provide an indication of the extent to which changes in trade flows, whether increases in imports or decreases in exports, are likely to induce gross job losses and, potentially, job displacement. It is calculated as:

$$\text{ICGROSS}_i^c = \max \left(0, \% \Delta \left[\frac{M_i^c}{P_i^c + M_i^c - X_i^c} \right] \right) + \max \left(0, \% \Delta \left[\frac{-X_i^c}{P_i^c + M_i^c - X_i^c} \right] \right)$$

The classifications of manufacturing industries, as facing low, medium and high international competition then proceeds in two steps. First, industries are ranked according to the values of these two indices, for a chosen historical period. The data that were used to calculate the two indices comes from the OECD's STAN database which provides 2-digit level production, import, export and employment data for manufacturing industries for the period 1980-2000 in most OECD countries.³ Second, thresholds defining low, medium and high international competition are established separately for each of the two indices and for each country.⁴ These thresholds are set, somewhat arbitrarily, according to the following rule: industries in the top quartile are considered high-international-competition industries, those in the second and third quartiles are considered medium-international-competition industries and those in the bottom quartile are considered low-international-competition industries.⁵

1. Kletzer (2001) first classifies industries according to changes in the import-penetration ratio, but then reclassifies a considerable number of industries using more *ad hoc* judgements concerning the intensity of import competition and the importance of intra-industry trade. Her empirical results suggest that increases in import penetration and declines in exports have quantitatively similar impacts on industry-level labour demand in the long run (Kletzer, 2001 and 2002), consistent with the approach adopted here for the net index of international competition.
2. As Kletzer (2001) argues, changes in employment should be related to changes in net imports, rather than to their level.
3. A small number of three and four-digit industries are also available for some countries.
4. Since these thresholds differ between countries, the low, medium and high classification of the intensity of international competition used here refers to *relative* intensities between industries within a country and do not reflect equal levels of *absolute* competitive intensity across the 15 countries analysed.
5. The 25% cut-off is somewhat arbitrary, but follows the methodology of Kletzer (2001). Other studies for the United States have used 15% (Schoepfle, 1982) and 30% (Bednarzik, 1993).

Trade data from the OECD STAN database are used to classify manufacturing industries in 15 OECD countries into three groups: those facing low, medium and high international competition during 1980-2000 (see Box 1.A1.1 for the technical details). The resulting classification of industries does not yield great surprises. Some industries, such as textiles, clothing, leather and footwear (TCF), are consistently high-import competing across member countries. Other sectors, including iron and steel (sometimes aggregated under basic metals), building and repairing of ships and boats, other transport (not related to motor vehicles, trailers and semi trailers) and food products, beverage and tobacco also figure prominently. Radio, television and communication equipment show high-to-medium increases in import penetration in most countries, with the exceptions of the United States, where sensitivity is relatively low, and Finland, where it is highly negative, reflecting the emergence of a strong comparative advantage in communications equipment. Import penetration in the pulp and paper industry has grown significantly in the Nordic countries and Canada.

Table 1.A1.1 summarises employment developments by the extent of international competition.² Employment in high-import-competing manufacturing industries fell an average of 27%³ and declined in all of the countries analysed, with the exception of small increases in Portugal and Spain. There is, however, a large spread with employment declines ranging up to approximately 50% in Finland and the United Kingdom. As expected, employment declines become less severe (or are absent altogether) in industries facing medium or low international competition. Nonetheless, a general shift away from the manufacturing sector throughout the OECD is evident, with the result that the majority of these 15 countries also experienced employment decreases in medium and low-import-competing industries (average reductions of 14% and 6%, respectively). While these data suggest that rising international competition is a significant factor resulting in employment declines in OECD manufacturing, productivity gains and adverse shifts in the composition of consumption demand also appear to be important sources of retrenchment in this sector.

2. Results for Australia, Belgium and the United Kingdom should be interpreted with caution, because employment data for these countries are only available at more aggregate levels, causing sectors with varying import sensitivities to be clustered together.

3. All of the averages cited in this and the following paragraph are unweighted.

Table 1.A1.1. **Employment growth and the intensity of international competition, 1980-2000**

	Period	Manufacturing industries				Change in employment, all industries (%)	Change in employment, manufacturing sector (%)
		Intensity of international competition ^a	Change in employment (%)	Share in total employment (%), 2000	Share in manufacturing (%), 2000		
Australia	1980-1999	High	-23.5	2.6	20.9	41.0	-10.2
		Medium	-8.9	7.2	57.4		
		Low	3.2	2.7	21.7		
Austria	1980-2000	High	-38.3	4.0	23.5	5.8	-23.2
		Medium	-21.5	8.9	52.8		
		Low	-4.5	4.0	23.7		
Belgium	1980-2000	High	-24.5	5.4	33.8	6.8	-28.1
		Medium	-28.5	5.6	35.3		
		Low	-31.1	4.9	30.9		
Canada	1980-2000	High	-8.4	3.8	27.4	36.5	5.0
		Medium	3.8	6.7	48.5		
		Low	28.4	3.4	24.1		
Denmark	1980-2000	High	-44.2	1.6	9.8	7.8	-12.0
		Medium	-7.4	9.1	55.1		
		Low	-4.1	5.8	35.1		
Finland	1980-2000	High	-49.6	5.0	24.9	-2.2	-21.0
		Medium	-13.7	9.4	46.9		
		Low	23.7	5.6	28.1		
France	1980-2000	High	-44.7	3.9	25.0	9.5	-27.4
		Medium	-21.3	7.3	46.4		
		Low	-14.6	4.5	28.6		
Italy	1980-2000	High	-27.9	4.4	19.6	8.2	-16.9
		Medium	-15.6	13.5	60.4		
		Low	-7.3	4.5	20.0		
Japan	1980-2000	High	-28.5	4.2	22.4	13.6	-8.0
		Medium	1.8	10.5	56.3		
		Low	-3.4	4.0	21.3		
Norway	1980-2000	High	-35.3	2.0	15.0	18.6	-19.9
		Medium	-15.8	8.0	61.5		
		Low	-17.9	3.1	23.4		
Portugal	1980-1999	High	3.6	1.9	9.4	7.7	-13.1
		Medium	-18.7	8.0	39.0		
		Low	-11.1	10.5	51.6		
Spain	1980-2000	High	6.1	3.5	19.3	27.1	0.3
		Medium	0.2	11.9	63.8		
		Low	-5.0	3.1	17.0		
Sweden	1980-2000	High	-22.7	4.3	24.5	0.2	-23.0
		Medium	-25.2	9.4	54.0		
		Low	-17.2	3.8	21.6		
United Kingdom	1980-2000	High	-51.8	3.8	26.3	8.7	-37.5
		Medium	-26.6	5.1	35.6		
		Low	-33.0	5.5	38.1		
United States	1980-2000	High	-18.8	4.1	32.3	39.9	-9.0
		Medium	-11.8	3.5	27.8		
		Low	3.3	5.0	39.9		

a) Based on within-country comparisons of net-import penetration growth rates, defined as the percentage increases in imports minus exports relative to total domestic demand [*i.e.* $(M-X)/(P+M-X)$].

Source: OECD STAN database.

On average for these 15 countries, high-import-competing industries accounted for 22% of manufacturing employment in 2000. When medium-competing industries are added, the OECD average rises to 72% of manufacturing employment. These figures suggest that an appreciable fraction of the industrial workforce in OECD countries could consider themselves to be “at risk” of being displaced by international competition, even if the numbers actually displaced in any given year is much smaller than total employment in these industries. However, employment in high-import-competing sectors averages just 4% of total employment (ranging from under 2% in Denmark, Norway and Portugal to 5% in Belgium and Finland), while the combined high and medium-import-competing sectors average 12% (ranging from 8% in the United States to 18% in Italy). These quite low values provide an important reminder that a very large majority of all jobs are in industries that have been much less exposed to international competition than have the most exposed parts of manufacturing.

ANNEX 1.A2

AN OVERVIEW OF RECENT ECONOMETRIC ESTIMATES OF THE IMPACT OF INTERNATIONAL TRADE ON EMPLOYMENT AND JOB LOSSES

Table 1.A2.1 presents an overview of recent empirical studies using multivariate techniques to estimate the impact of international trade on industry-level employment and gross job losses. This information provides the basis for the summary assessment of econometric studies appearing in OECD (2005a), Chapter 1, Section 2.

Table 1.A2.1. **Selected econometric estimates of the impact of international trade on employment and job losses**

A. Net changes in employment from trade			
Study	Country/Region	Description of Study	Findings
Revena (1992)	United States, 1977-1987, 38 3- and 4-digit manufacturing industries (selected as being import impacted)	Impact of import prices (interacted with import share) on employment, average weekly hours and wages of production workers.	A 10% reduction in import prices is associated with a drop of 2.5 to 4% in employment and 0.5 to 1% in wages in this sample of trade-impacted industries
Sachs and Schatz (1994)	United States, 1978-1990	Job-losses (net) among unskilled workers due to increasing import shares.	7% job-loss among manufacturing workers; 2% among non-manufacturing
Wood (1994)	"Northern" (i.e. highly-industrialised) economies, 1990	Factor-content analysis of the effects of North-South trade on demand for employment in the manufacturing sector.	Net job destruction of 5% of employment in manufacturing in northern countries
Burgess and Knetter (1998)	G-7 countries, 1970-1988, 14 2-digit industries	Impact of changes in real exchange rates on employment growth (also wages).	Correctly signed and significant coefficient in >25% of the 95 separate regressions and wrongly signed and significant in 3%.
Freeman and Revenga (1999)	18 OECD countries, 1978-1992, 49 manufacturing industries	Regressions in 1 st difference of industry-level employment and wages on import penetration and controls for total output, year and country.	Coefficient on the change of import penetration is negative and highly significant for both industry-level employment and wages, with bigger estimated impacts in Canada/United States than in EU countries (e.g. a one-unit increase in import penetration resulting in -0.112 and -0.065 log-point increases, respectively, of employment).
Goldberg and Tracey (2000)	United States, 1971-1995, 2-digit industries	Impact of industry-specific import and export real exchange rates on employment	Significant effects found in 13 of 20 industries, with the strongest effects for appreciations of the export exchange rate reducing employment.
Campa and Goldberg (2001)	United States, 1972-1995, 2-digit industries	Impact of industry-specific real exchange rates on employment (also hours and overtime).	Real exchange rates have a significant impact on employment, but it varies between low and high mark-up industries and extent of trade in intermediates.

Study	Country/Region	Description of Study	Findings
Trefler (2001)	Canada, 1989-1996, detailed manufacturing industries experiencing large reductions in protection with the enactment of the Canada/US Free Trade Agreement.	Difference in difference estimates of the impact of the reduction in protection on employment.	For all industries considered, average tariff reduction of 5% resulted in a 3% fall in employment (10% and 15% for the most affected industries).
Kletzer (2001, 2002)	United States, 1979-1994), 3-digit manufacturing industries	Net employment changes due to changes in import and export flows, (or to changes in import and export prices).	Employment elasticities of 0.7 for exports and - 0.4 for imports. Increases in imports have a greater impact in lowering employment in "traditional" import-competing industries such as footwear and textiles, where the initial import share was high. Price effects generally insignificant.
Kucera and Milberg (2002)	Ten OECD countries	Factor content analysis of the effects of trade expansion on employment in the manufacturing sector over the period 1978 to 1995.	Net loss of 3.3 million jobs, 2 million in the United States. Bulk of loss is due to intra-OECD trade. Net job losses from North-South trade results from export declines to LDCs, especially in the wake of the 1980s debt crisis, rather than from an increase in import penetration.
Amiti and Wei (2005a)	United Kingdom, 1995-2001, 69 manufacturing and 9 service industries.	Regression analysis of the impact of increases in the outsourcing of business services on employment.	No significant effect found.
Amiti and Wei (2005b)	United States, 450 manufacturing and service industries.	Regression analysis of the impact of increases in the outsourcing of business services on employment.	Growth in outsourcing is associated with a small, statistically significant reduction in employment for the most detailed industries (450), but this effect vanishes when the model is re-estimated for less detailed industries (96).

B. Impact of trade on the incidence of displacement and gross job flows			
Study	Country/Region	Description of Study	Findings
Haveman (1998)	United States, 1979-1989, 3-digit industries in manufacturing.	Impact of changes in industry-specific import and export prices on rate of displacement of workers with at least 2 years of job tenure.	A 1% increase in industry import price reduces displacements by 2.2%. Export price effect is not statistically significant.
Gourinchas (1998)	United States, 1972-1988, 103 4-digit industries in manufacturing (chosen from both the most and the least open industries, "tradable" and "non-tradable," respectively)	Impacts of industry-specific real exchange rates (de-trended) on job creation and job destruction.	A 10% appreciation increases job destruction by 0.4% and job creation by 0.2%, resulting in a net reduction in employment of 0.3%, with most of this impact due to "tradable" industries.
Gourinchas (1999)	France, 1984-1992, 2-digit manufacturing industries.	Impacts of industry-specific real exchange rates (de-trended) on job creation and job destruction in select "traded" industries.	A 10% appreciation increases job destruction by 2.4% and decreases job creation by 7.1%, resulting in a net reduction in employment of 9.5%.
Bentivogli and Pagano (1999)	Germany, France, Italy and the UK, 1992-1995, 14 manufacturing branches.	Impact of shifting trade with newly industrialised Asian economies on a proxy measure of job destruction base on unemployed persons having lost a job in the previous year in that industry.	No robust evidence that changes in exports and imports with the selected countries affected the rate of job destruction.
Goldberg, Tracy and Aaronson (1999)	United States, 1977-1997, two-digit industries (total private economy).	Impact of industry-specific export and import real exchange rates on 1-year job changing probability.	No consistent patterns across industries or over the period. Some evidence that appreciations lower job- and industry-switching probabilities.
Levinsohn (1999)	Chile (details to look up)	Impact of trade policy changes on job creation and job destruction.	Finds significant effects.
Davis and Haltiwanger (2001)	United States, 1972-1988, 4-digit manufacturing industries.	Impact of oil price shocks on job creation and job destruction.	Oil price shocks trigger considerable job reallocation and net employment adjustments, with job destruction being particularly sensitive (e.g. 1973 shock caused 11% job reallocation over next 15 quarters).

Study	Country/Region	Description of Study	Findings
Kletzer (2002)	United States, 1979-1994), 3-digit manufacturing industries	Estimates of total job displacement in highly import-competing industries and of changes in displacement due to changes in import and export flows and prices (also analyses the characteristics of trade-displaced workers and displacement costs).	6.45 million workers displaced from highly import-competing industries. Industry employment elasticity for exports is 0.2 and significant, imports and prices effects are usually insignificant. Average trade-displaced worker accepts a 13% pay cut in new job.
Klein, Schuh and Triest (2003)	United States, 1975-1993, 4-digit manufacturing industries	Impacts of industry-specific import and export real exchange rates on job creation and job destruction.	A 1-standard deviation increase in the export exchange rate increases job destruction by 0.5 percentage points over 2 years for an industry with an average degree of openness (1.6 percentage points for 90 th percentile level of an industry at the openness).
Wacziarg and Walack (2004)	25 low and medium income countries, trade liberalisation episodes between 1976 and 1994, 1-digit industries (entire economy) and 4-digit industries (manufacturing)	Impact of different types of liberalisation on indices of inter-sectoral labour mobility.	Liberalisation associated with greater inter-sectoral mobility only at the level of detail manufacturing industries, but the effect is small and not very robust. The effect is stronger when trade liberalisation was combined with domestic deregulation and privatisation.

ANNEX 1.A3

POLICIES TO REDUCE ADJUSTMENT COSTS: WHAT TYPES OF MEASURES WORK BEST?

This annex reviews the main policies used in OECD countries to reduce the adjustment costs borne by trade-displaced workers. It complements the analysis of broad policy orientations, which is provided in OECD (2005a), Chapter 1, Section 3, by discussing the content of different policy measures in greater detail.⁴

Indirect policies are discussed in Section A. These are policies which lower adjustment costs by creating the broad framework conditions necessary for overall labour market efficiency (particularly as concerns job creation and labour mobility). Kongsrud and Wanner (2005) discuss these policies in greater detail.

Attention then turns to the two main types of *direct* assistance for trade-displaced workers: active labour market programmes (ALMPs) in Section B and earnings-replacement benefits in Section C. To the extent that ALMPs foster quicker and less costly adjustment, they can contribute to meeting both efficiency and equity concerns. However, it is unlikely that even a well functioning system of ALMPs can prevent some trade displaced workers from experiencing large earnings losses. Income-support schemes represent a straightforward mechanism for compensating such losses. However, compensation schemes must be designed carefully to avoid blunting workers' incentives to adjust to shifts in labour demand, which are an inherent feature of a dynamic economy.

Finally, national examples of labour-market programmes providing direct adjustment assistance to trade-displaced workers in OECD countries are presented in Section D.⁵ This information is collected in Table 1.A3.1 and complements the more synthetic and analytical discussion in the text of Sections B and C.

A. *What are the “framework conditions” for efficient re-employment?*

The ease with which labour markets are able to adapt to shocks, such as those caused by changes in international trade and investment, will have an important impact on the re-employment prospects of trade-displaced workers. The gains from trade will also be higher in countries where the adjustment capacity of the labour market is greater (see Box 1.A3.1).

4 . OECD (2005b) discusses a wider range of policies to lower trade-related adjustment costs, including macroeconomic, trade and sectoral policy. This study also analyses policies to facilitate trade-related structural adjustment in developing countries.

5 . Most of the programmes described do not specifically target trade-displaced workers, yet operate so as to be important sources of adjustment assistance for this group.

Box 1.A3.1. Labour market functioning and the gains from international sourcing of business services

In 2003, the McKinsey Global Institute (MGI) published an analysis of the direct and indirect economic effects of sourcing U.S. back-office and IT functions to India. The study suggested that for every dollar transferred by US companies to India, a total of USD 1.46 in wealth was created. Of this, USD 1.13 was captured as cost savings by US firms and the remaining USD 0.33 went to India in the form of wages, profits and taxes. However, similar analysis for Germany by the MGI obtains less favourable results: for every Euro that German firms transfer abroad, the economy is estimated to be worse off by 20 cents. Some of the discrepancy is accounted for by geographical factors, such as the fact that German firms source largely to eastern neighbours where the savings in wage costs obtained are smaller than in the case of U.S. sourcing to India. However, the bulk of the discrepancy in the estimated size of returns to United States and German international sourcing is due to differences in labour market adjustment capacity. Greater mobility in the U.S. labour market allows it to derive more indirect economic value from redeploying workers whose jobs are outsourced. German workers who lose their jobs as a result of international sourcing have a harder time finding new employment than do similar displaced workers in the United States (consistent with the evidence presented in OECD, 2005a, Chapter 1), and hence represent a larger drag on the net benefits from international sourcing.

Source: McKinsey Global Institute (2004).

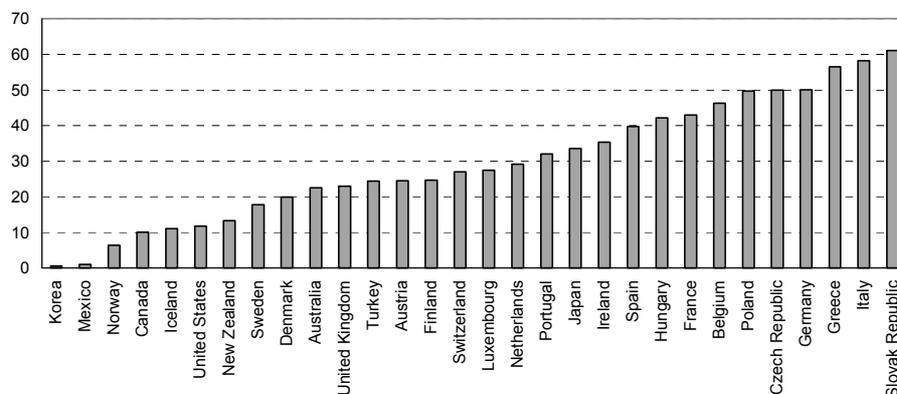
Adjustment costs for trade-displaced workers should be lower in countries where labour market institutions facilitate labour mobility. Indeed, a number of indicators point to substantial cross-country differences in the mobility of labour resources (Chart 1.A3.1):

- Countries' capacities to re-employ displaced labour resources vary considerably, as measured by the incidence of long-term unemployment (Panel A).
- Labour mobility between employers differs widely, as measured by the average job tenure of workers (Panel B) or job turnover rates (OECD, 1997, Chapter 2).
- Finally, regional labour mobility is important to handle structural change that has uneven geographical impact. Again, large country differences appear to exist, as measured by the incidence of internal migration (Panel C) and the dispersion in regional unemployment rates (OECD, 2005a, Chapter 2).

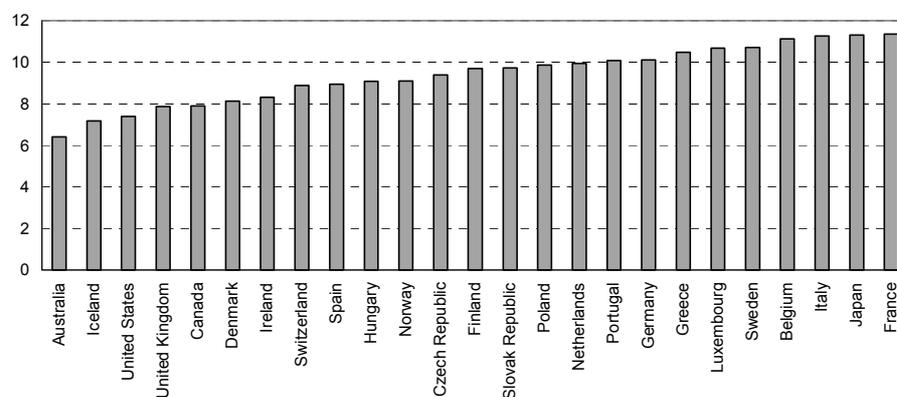
These mobility indicators should be interpreted with caution, since some labour turnover may represent unproductive "churning" and country disparities in re-allocative turnover could reflect differences in the magnitude of structural shocks, rather than differences in adaptive capacity. Nonetheless, it appears likely that OECD countries differ significantly in their adjustment capacities and that trade-displaced workers are likely to confront additional barriers to re-integration where labour markets are less adaptable.

Chart 1.A3.1 Indicators of labour mobility

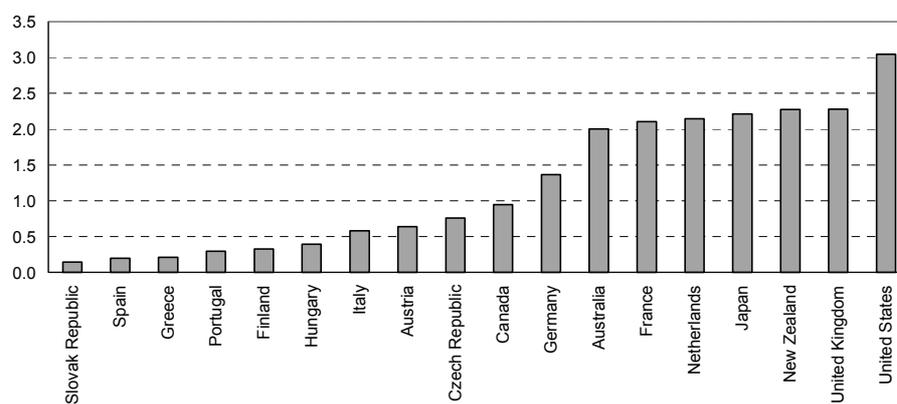
A. Incidence of long-term unemployment^a, 2003^b



B. Average job tenure (years), 2003^b



C. Internal migration in 2003^b (gross outflows as a percentage of the population aged 15-64)^c



- a) Defined as those unemployed continuously for 12 months or more as a percentage of total unemployment.
 b) Or latest year available.
 c) Regional level 2, except migration calculated for regional level 1 in Australia, Canada and the United States. The population reference for Australia is the total population and for Japan persons over five years of age.

Source: OECD Unemployment by Duration and Job Tenure databases and OECD (2005a), Chapter 2 (migration rates).

A number of policies may impact on the capacity of national labour markets to adjust in the face of structural shocks, including by reintegrating trade-displaced workers into jobs that make good use of their skills and aptitudes. To this end, regulations and related policies should foster employability and mobility in the labour force and a business environment supportive of growth and job creation. Many of the policy recommendations that encourage a supportive economic environment for labour market adjustment have been laid out by the OECD Jobs Strategy (OECD, 1994 and 1999). Four components of this broader policy agenda appear to be of particular salience to enhancing countries' capacity to adapt to trade:

- *Product market competition* – Flexible and competitive product markets are important in facilitating structural adjustments. For example, reduced barriers to competition (including international competition), entrepreneurship and growth are instrumental in strengthening job creation, making it easier to absorb workers displaced by imports in growing sectors of the economy.⁶ In particular, product market deregulation may unleash the considerable potential of the service sector as a source of new employment (OECD, 2005c).⁷
- *Employment protection legislation (EPL)* – Overly strict employment protection may slow down the adjustment process by constraining firms' ability to cope with a rapidly changing environment.⁸ Since firms' firing as well as hiring practices are likely to be affected by the restrictiveness of employment protection, both the inflow to and outflow from unemployment could potentially be reduced. Furthermore, the availability of high severance pay reduces the incentives for high-tenure workers to change job voluntarily.⁹ However (and as was discussed in Section 3), advance notification of layoffs can reduce adjustment cost by providing all interested parties time to plan and implement the necessary adjustments (OECD, 2005a, Chapter 1).
- *Wage-setting* – Firms' wage-setting practices may discourage workers from changing employer. In some countries, wages are closely tied to the number of years worked in the firm, thus significantly reducing the incentives for older and long-tenured workers to consider moving to a different firm.¹⁰ Flexibility in relative wages is also required to provide adequate price signals during periods of structural change. Centralised systems of wage

6 . Product market deregulation is also associated with higher levels of “creative destruction,” implying that it may increase the incidence of job displacement even as it reduces barriers to becoming re-employed (OECD, 2002, Chapter 5). It follows that pro-competition product market policy is complementary with labour market policies that facilitate mobility.

7 . More developed and competitive capital markets can also make an important contribution to greater economic dynamism and have been shown to be associated with better labour-market performance (Bednarzik, 2001).

8 . Research has also shown that strict EPL impedes firm creation and the ability of successful start-ups to expand rapidly, applying a brake to the types of entrepreneurial response that appear to be key to realising the full benefits from structural change (OECD, 2003b).

9 . It is possible to reduce some of the drawbacks of traditional severance pay systems, while continuing to provide workers with compensation against dismissal. For instance, Austria has recently replaced its traditional severance pay system with individual severance accounts that workers can carry with them in the event of changing employers – thus facilitating mobility, which is so important in the face of structural change (OECD, 2004, Chapter 2).

10 . Similarly, defined-benefit pension schemes are not always fully portable from one employer to another, thereby inhibiting mobility. Sometimes, workers may lose all their pension rights if, for example, they leave the employer within 3 or 5 years of appointment.

bargaining may thus impede efficient adjustment unless adequate provision is made for taking into account the specific competitive situation of sectors and firms (e.g. via “opt-out” clauses). The more compressed wage structure in many European countries, as compared to the United Kingdom and the United States, might be a barrier to re-employment prospects and hence one of the factors explaining the lower rates of re-employment following displacement in Europe (as shown in OECD, 2005a, Chapter 1, Section 2). However, targeted fiscal measures, such as tax exonerations for low-wage workers, may be able to partially off-set such effects (Jamet, 2005; OECD, 2003a, Chapter 3).

- *Adequate workforce skills* – Ensuring a workforce with adequate and adaptable skills is a key requirement for facilitating structural adjustments and, over the longer run, will support growth in productivity and real earnings. This is particularly true since changes in the job mix and production technologies both imply rising skill requirements. High-skilled workers tend to have relatively high job-to-job transition rates and are more mobile across occupations, industries and regions. High-educated workers and workers receiving in-work vocational training also face less risk of lay-off than their low-educated and non-trained counterparts. Even when they lose their jobs, educated and trained workers enjoy a relatively high probability of re-employment.¹¹ Enhancing the incentives to invest in workers’ skills is thus especially important in the face of rising trade competition and, more generally, structural change that requires greater labour mobility.¹²

B. Active labour market programmes

Although good framework conditions can reduce trade-adjustment costs indirectly, by fostering a high level of labour-market adjustment capacity, adjustment assistance provided directly to trade-displaced workers represents a valuable complement to these indirect measures.¹³ This section analyses the role of ALMPs, while Section C (below) considers earnings-replacement benefits, the second main type of direct adjustment assistance. Brief descriptions of national examples of direct adjustment assistance are then presented in Section D: Panels A-E of Table 1.A3.1 being devoted to presenting various types of ALMPs and Panels F-G of Table 1.A3.1 to examples of innovative measures for reconciling earnings-replacement benefits with incentives to become re-employed rapidly.

The empirical analysis in OECD (2005a), Chapter 1, Section 2 suggests that trade displacement represents a significant potential in-flow of formerly stable workers into structural unemployment,

11. These associations continue to be evident even after statistical correction for possible selection bias due, for example, to more capable or more motivated workers being more likely to receive training (OECD, 2004, Chapter 4).

12. However, workforce skills can only be raised gradually and some older displaced workers will have difficulty benefiting from formal training programmes. Consequently, fiscal mechanisms to increase the hiring of low-skilled workers, such as exonerations of social charges for low-wage workers, may also have a role to play (Jamet, 2005).

13. The distinction between direct assistance and indirect policies is sometimes rather arbitrary. This is perhaps most markedly so for the job-brokering services provided by the public employment system (PES). If performed well, these functions both directly assist the trade-displaced workers served by the PES and indirectly assist them in their job search by contributing to the overall efficiency of the labour market in matching job seekers with job vacancies. The choice to discuss the PES in this section (*i.e.* as a form of ALMP), rather than in the previous section (*i.e.* as a framework condition), was made for expositional ease rather than substantive reasons.

premature labour force withdrawal or endemic underemployment. Appropriate forms of ALMPs, such as jobs search assistance and retraining, can reduce adjustment costs by minimising such transitions. The main contribution that ALMPs can make is thus to support trade-displaced workers – particularly, the substantial minority within this group who experience great difficulty in becoming re-employed or only become re-employed at much lower wages – to re-integrate into employment in jobs that make good use of their productive capabilities.

A general principle in best practice for ALMPs is that each person should receive a comprehensive package of treatments that corresponds to his or her specific needs.¹⁴ This raises the question whether workers displaced by trade tend to require a different mix of treatments than other clients of ALMPs and, if so, whether the services that they receive are suitably tailored to their specific situation on the labour market. OECD (2005a), Chapter 1, Section 2 shows that older workers displaced from jobs in declining import-competing sectors are particularly likely to possess obsolete skills for which little demand exists in expanding industries and consequently to experience greater adjustment difficulties than are other job losers. This suggests that job-search assistance for trade-displaced workers may need to be complemented by more intensive measures, such as training or employment subsidies, more often than is true for the average person receiving unemployment benefits. Thus, one question that arises is whether ALMP systems are providing enough of these intensive services and targeting them to trade-displaced workers who can most benefit from them.

It should not be assumed, however, that intensive measures such as retraining or employment subsidies are appropriate for most trade-displaced workers. This is a heterogeneous group and many of its members appear to fare quite well with little or no assistance. Even among those facing greater adjustment difficulties, such as older workers displaced in declining industries, it should not be assumed that the best approach is to “retool” them for jobs in more dynamic sectors (*cf.* the discussion of industry of re-employment of displaced workers in OECD (2005a), Chapter 1, sub-section 2.C). Even in declining sectors, there is considerable hiring as some part of natural attrition must be replaced. Thus, older workers displaced from such industries, whose skills are highly specialised and linked to those required in their previous industry, should sometimes be assisted to locate vacancies in their prior industry, where their productivity and earnings will be higher. An additional reason for caution, is that evaluation results for ALMPs generally have been more favourable for less intensive measures, such as jobs search assistance, than for more costly and intensive measures (Dar and Tzannatos, 1999; Martin and Grubb, 2001; Betcherman *et al.*, 2004; Kletzer and Koch, 2004). All of these considerations point towards there being no one right treatment for trade-displaced workers. Tailoring the assistance offered to each worker’s needs – in particular, targeting the right intensive ALMP interventions to the right workers – represents an important precondition for obtaining good results at a reasonable cost.

Which types of active assistance measures are particularly important for improving the re-employment prospects of trade-displaced workers and which members of this group should receive which types of assistance? While a detailed answer to this question cannot presently be given, experience in different OECD countries, including evaluation studies of different ALMPs, provides some guidelines for making policy choices, including the importance of differentiating between basic services that should be promptly offered to all job losers seeking assistance and more intensive measures that should be carefully targeted. Two types of basic services can be identified:

14 . Chapters 4 and 5 of OECD (2005a) present a more comprehensive analyse the efficient functioning of the PES and ALMPs, while Table H of the Statistical Annex to that publication provides an overview of spending on ALMPs in OECD countries.

- *Orientation* – Employment services should offer individualised orientation to job losers, helping them to quickly and accurately access their re-employment prospects and to develop a realistic plan for re-integrating into the labour market. Typically, orientation involves one or a series of meetings with a counsellor who provides up-to-date information about job openings and the range of PES services potentially available to assist in contacting employers with vacancies or in becoming qualified for a new line of work. Different techniques can be used, for example participants may undergo a form of skills testing or assessment to determine their needs, interests and aptitudes, but the essential need is to rapidly orient displaced workers towards identifying and then pursuing an appropriate strategy for regaining a foothold in the employment.¹⁵ This may be a particularly difficult process for trade-displaced workers whose work experience, job qualifications and past earnings levels are a poor match for the job openings available in the local labour market.
- *Job-search assistance* – Evaluation studies have generally concluded that job-search assistance (JSA) is the most successful form of ALMP, on a value-for-money basis, since it achieves results similar to those realised by more expensive training programmes at a far lower cost (Dar and Gill, 1995; Fay, 1996; Dar and Tzannatos, 1999; Martin and Grubb, 2001; Betcherman *et al.*, 2004). The value of JSA may be particularly high for workers displaced after many years of employment with the same firm, since these workers may have lost many of the skills associated with a successful job search (knowledge about *e.g.* local and regional demand for skills, how to obtain up-to-date information regarding job vacancies and what behaviour is expected in job interviews). Specific JSA measures can include general placement assistance, specific job referrals and participation in labour exchanges or job clubs (*i.e.* where workers meet regularly to receive information regarding jobs and job-search techniques, develop search strategies, prepare résumés, receive moral support and other services associated with an employment search). Self esteem counselling also may be provided to prevent displaced workers from becoming discouraged in their job search.

Intensive measures may be appropriate for workers for whom there is no realistic opportunity to return to a similar job in their local labour market and for whom finding employment in a different line of work or region would be difficult or impossible without assistance. In such cases, a number of measures may be appropriate:

- *Retraining* – It is natural to suppose that retraining can help workers displaced from declining sectors or occupations move into jobs in expanding areas of the economy that pay wages that are at least comparable to those on the lost job. However, evaluation for training programmes typically have been disappointing (Dar and Tzannatos, 1999; Park *et al.*, 1996) and it appears that retraining should be used sparingly, particularly so since it is an expensive form of assistance.¹⁶ Furthermore, most programmes that present positive results achieve gains through improved employment possibilities rather than through higher wages (Dar and Tzannatos, 1999; Martin and Grubb, 2001), suggesting that retraining may have a limited capacity to reduce the large wage losses of some displaced workers on their now job (*cf.* OECD, 2005a, Chapter 1, Section 2). Unfortunately, evaluation studies do not provide

15 . It is sometimes feasible for this orientation process to begin before layoffs actually take place and such a head start appears to reduce adjustment costs (OECD, 2005a, Chapter 1, Section 3).

16. Longer-term classroom training is typically the most expensive form of retraining. In addition to the direct costs of providing training there is often a need for complementary income support to the participants. In some cases, remedial training also may be necessary for workers who lack basic academic skills required to succeed in a vocational training course.

consistent guidance concerning which types of workers benefit most from which types of training. Early evaluations for displaced worker programmes in the United States suggested that relatively short training programmes, designed to upgrade existing skills, were usually more effective than longer-term training for entering new occupations, particularly for older job losers (Leigh, 1995). More recent evaluation evidence suggests that extensive class room training can be valuable, even for older displaced workers, but probably only for a small share of all such job losers (Jacobson *et al.*, 2004).

- *Relocation assistance* – Trade-displaced workers are at an elevated risk of residing in economically depressed regions and often will need to extend their job search to geographic areas where labour markets are more buoyant. It follows that the employment services provided to this group will often require a broad geographical scope. However, even if a job seeker is matched to a job opening outside of the immediate area, there may be financial constraints preventing the geographic mobility required to take advantage of this opportunity. A number of OECD countries offer grants or allowances for travel expenses related to interviews as well as relocation costs for those who accept employment outside of their area of residence. Nonetheless, take up of relocation grants tends to be low, probably due to personal attachments to local geographic areas on behalf of displaced workers and their families, and barriers to moving created by the housing market (see OECD, 2005a, Chapter 4 and Kongsrud and Wanner, 2005). These factors that may be particularly important for older displaced workers.
- *Employment subsidies* – A number of OECD countries make use of employment subsidies to stimulate labour demand for certain job seekers, typically members of disadvantaged groups or the long-term unemployed. The evaluation literature has suggested that the net employment gains resulting from wage subsidy programmes are negligible or even zero (Martin and Grubb, 2001).¹⁷ Nonetheless, these policies sometimes can be justified on equity grounds, as providing jobs for the long-term unemployed (albeit at the expense of the short-term unemployed). These considerations make it clear that precise targeting is crucial to obtaining good results. That conclusion also applies to a second use of employment subsidies that has special relevance to trade-displaced workers, namely, as an incentive to employers to maintain positions that would otherwise be suppressed, so as to avoid or delay job displacement. In certain cases, market failure can lead to excessive layoffs (*cf.* OECD, 2005a, Chapter 1, Section 3) providing a possible rationale for such subsidies. Some OECD countries have made use of narrowly targeted employment subsidies to avoid or delay layoffs.¹⁸ These measures do not appear to have been subjected to rigorous evaluation, but it appears likely that employment subsidies used to save jobs often would be difficult to target so as to increase efficiency, rather than to create inefficiencies (*i.e.* by slowing labour market adjustment to shifts in comparative advantage and other types of structural economic change).

17. Similarly disappointing results have emerged regarding wage outcomes of such policies (OECD, 1993; Betcherman *et al.*, 2004).

18. For example, Germany encourages internal redeployment of workers threatened with job loss by offering temporary subsidies for moving these workers to new positions within the same firms. The Swedish government made similar use of employment subsidies from 1977 to 1989 in a programme targeted at protecting the jobs of older workers in the textile and clothing sector, which was experiencing increasing exposure to international markets.

- *Assistance for small business start ups* – Most OECD countries devote a small share of total ALMP spending to schemes that support unemployed individuals seeking to create a small business, through credits or grants and are often accompanied by technical assistance or other support. This has often been viewed as a positive alternative to unemployment assistance and a means of developing an entrepreneurial culture in areas where one might be wanting.¹⁹ Relatively few evaluations for enterprise-development assistance exist, but there is some evidence that few unemployed persons take advantage of such subsidies (Dar and Tzannatos, 1999) and that such programmes are most helpful to higher-educated job seekers (Betcherman *et al.*, 2004). Both of these patterns suggest that these programmes are probably of only limited application to the trade-displaced workers facing the greatest adjustment difficulties.
- *Public-sector job creation* – Like employment subsidies, public-sector job creation schemes are used to re-establish a connection between long-term unemployed and the world of work. Some countries may also use job-creation measures to condition the receipt of unemployment benefits by some workers on their participation in public-works schemes. While these schemes may be useful for maintaining labour-market contact for some trade-displaced workers in economically depressed areas for whom out-migration is not an attractive option, evaluations do not suggest that they are useful for securing permanent, unsubsidised jobs (Martin and Grubb, 2001). A further concern related to these policies is the risk that participants become stigmatised by potential future employers, particularly in the case of repeated participation. Such employment creation policies are also very expensive and can represent a high opportunity cost for funding other active measures (Evans-Klock *et al.*, 1998).

C. *Earnings-replacement benefits*

The analysis of the post-displacement costs in OECD (2005a), Chapter 1, Section 2, together with the somewhat sobering results of ALMP evaluations, indicate that a significant minority of trade-displaced workers will experience large and enduring earnings losses even if appropriate framework and active policies are in place. The most straightforward way to cushion these losses is through unemployment insurance and related earnings-replacement transfer programmes.

As compared with other users of unemployment insurance (UI) and related benefit systems, trade-displaced workers evoke particular concerns that are related to the long-term losses in earnings potential that sometimes follows job displacement (particularly in declining sectors). First, labour supply distortions may tend to be particularly large, because benefit levels that appear “reasonable” in terms of earnings on the lost job may in fact be very high relative to potential earnings in available new jobs (Kongsrud and Wanner, 2005). This consideration argues for keeping benefit levels relatively low and/or restricting the period of eligibility for benefits, so as to guard against trade displacement translating into a steady flow of workers into long-term unemployment or inactivity. A second concern is that trade-displaced workers arguably should be compensated, at least in part, for the reduction in earnings that persists after re-employment, and not only for the earnings lost while searching for a new job (as via UI). Since this second consideration argues for supplementing, rather than reducing, the earnings-replacement benefits conventionally offered to job losers, it is evident that

19. However, potential for deadweight loss can be high if entrepreneurs who receive assistance are those who would have started their businesses without subsidies. Such subsidies can also encourage a crowding out effect for businesses not receiving similar government assistance.

providing income support for trade-displaced workers requires that some difficult design issues be confronted.

Conventional earnings-replacement benefits

Unemployment insurance (UI) and related unemployment benefits (UB) are part of an economy's social safety net for workers and play a central role in reducing the income losses from trade displacement, particularly, those associated with the time spent finding a new job. As was mentioned above, there is a very real danger that these benefits will slow re-employment of trade-displaced workers if they are high relative to earnings on available jobs. However, unemployment benefits can also contribute to efficient adjustment by allowing trade-displaced workers more time to invest in searching for a new job which is a good match for their skills and preferences, possibly having a positive effect on re-employment wages. Similarly, UI/UB can facilitate participation in job training and other measures that may enhance re-employment prospects and be especially worthwhile for certain trade-displaced workers (*cf.* Section B, above). Thus, it is no easy matter to assess whether unemployment benefits should be more or less generous for this group than for other unemployed. Since it is also very difficult to differentiate between trade-displaced workers and other job losers, in practice (OECD, 2005a, Chapter 1, Sections 2 and 3), the former group should probably be treated according to the same rules as other programme participants. However, the fact that a significant number of trade-displaced workers enter UI/UB roles increases the importance of designing these benefit programmes so as to minimise unemployment traps.²⁰

It is a difficult challenge to design UI/UB programmes so as to provide adequate income security while also encouraging beneficiaries to become re-employed. OECD countries have experimented implemented a number of ideas for attempting to better reconcile these two goals, including: *i*) re-employment bonuses (see Box 1.A3.2); *ii*) "activation" strategies which condition the receipt of unemployment benefits on active job search and work availability (OECD, 2003a, Chapter 4; OECD, 2005a, Chapters 4-5); and *iii*) in-work benefits (OECD, 2005a, Chapter 3).

The situation is somewhat clearer with respect to other earnings-replacement benefits, such as retirement and disability schemes, which have sometimes been made available to trade-displaced workers – especially to older trade-displaced workers – who do not meet the normal age or health status thresholds for these programmes (OECD, 2005d). For example, France, Germany and Italy have made particularly heavy use of early retirement schemes for older displaced workers, in situations where reintegration into employment would have been a more efficient policy choice, albeit far from easy to implement successfully. Disability and long-term sickness benefits have been used in a similar manner, particularly in the United Kingdom and the United States. In light of the high fiscal costs associated with such "solutions", governments need to be careful to restrict access to these programmes to the purposes for which they were created. However, it should be recognised that frequent recourse to such measures in the past is an indication of how difficult it can be to re-integrate older displaced workers into employment and of the need to provide more effective adjustment assistance measures to this group.

20 . Panels F-G of Table 1.A3.1 provide brief descriptions of selected examples of innovative schemes to better reconcile UI benefits with strong incentives to re-employment for trade-displaced workers, which supplement the more general discussion in the text that follows. OECD (2005a), Chapter 3 analyses labour-supply disincentive effects of social benefits in greater detail, as well as the potential contribution of in-work benefits to reducing these distortions.

Box 1.A3.2 Re-employment bonuses

Japan and Korea have implemented re-employment bonuses in an attempt to shorten the period of time that job losers remain jobless and receive unemployment benefits. Re-employment bonuses are awards paid to benefit recipients who find and accept employment within a specified time period. The size of the bonus can be a fixed-sum payment or based on a percentage of the total unemployment benefit for which the worker is eligible. In Japan, workers who become re-employed (at least 20 hours per week) while 1/3 or more of the unemployment benefit eligibility period remains are entitled to a lump sum payment equalling the product of the basic daily allowance amount and 1/3 of the remaining days of entitlement. Similarly, persons receiving unemployment benefits in Korea who become re-employed while over 50% of their period of benefit eligibility remains (at least 20 hours per week) receive a lump sum payment equalling 50% of their remaining benefit entitlement.

A pilot scheme in the state of Illinois in the United States compensated job seekers with a lump-sum payment of USD 500 for re-employment within an 11-week period. Evaluations of four US re-employment bonus programmes in the United States indicate that they were successful in shortening unemployment spells, albeit by only about one-half week (or 3% of an average duration of UI receipt). However, the net impact was to increase government spending in three of the four experiments, since the extra spending on re-employment bonuses was not fully offset by the reduction in conventional unemployment benefits (Meyer, 1995). In the mid-1990s, as part of an effort to make re-employment bonuses more cost-effective, programmes began to target only those candidates most likely to exhaust UI entitlements. Recent evaluations of targeted bonuses indicate that positive cost-effective results are achievable and that, if implemented as a permanent programme, would yield significant net benefits (O'Leary *et al.*, 2005).

The United States is considering new legislation (H.R. 27, "The Job Training Improvement Act of 2005") which would encourage States to provide, on a pilot basis, USD 3 000 "personal re-employment accounts" to job seekers identified as most likely to exhaust benefits. These accounts would be provided in lieu of standard re-employment services and could be used to purchase job training or other services that facilitate a return to employment, such as child-care and transportation, as part of an effort to speed up the re-employment process. Recipients will be able to keep the balance of the account as a cash re-employment bonus if they find a job within 13 weeks.

Wage insurance may be a useful addition to the policy tool kit

Wage insurance is a benefit scheme that pays an earnings subsidy to displaced workers, who accept new jobs at lower wage rates within a specified period of time, where the benefit amounts are set so as to replace a fraction of the difference between earnings on the old and new jobs. The idea of providing wage insurance to trade-displaced workers has been promoted as serving a threefold purpose. First, this would help provide a more equitable distribution of the gains from globalisation by reducing the adjustment costs faced by those who are hurt by trade and investment liberalisation. Second, wage insurance would serve as an incentive to speedy re-employment as remaining on unemployment benefits becomes less attractive relative to accepting a new job. Finally, by mitigating worker anxiety about the job and earnings insecurities related to trade liberalisation, political opposition to further opening of product and service markets would also be diminished.²¹

Wage insurance appears to have the potential to better reconcile the equity goal, that the amount of compensation paid should reflect the size of earnings losses, with the efficiency goal of encouraging rapid re-employment. However, these types of schemes raise a number of complex issues related to design details that have yet to receive careful scrutiny. In particular, wage insurance might introduce

21. The idea of providing wage insurance to workers displaced by trade or international sourcing has received particular attention from U.S. economists (see Lawrence and Litan, 1986; Baily *et al.*, 1993; Jacobson *et al.*, 1993; Kletzer and Litan, 2001, Kletzer 2003; Brainard and Litan, 2004). American researchers appear to have been particularly attracted to this approach because there is a considerable body of empirical research for the United States documenting the often deep and enduring earnings losses suffered by displaced workers and it is believed that the public's awareness of these wage losses reinforces political support for protectionist measures. Some have argued, however, that there is no compelling reason that wage insurance be offered only to trade-displaced workers (Kletzer and Rosen, 2005).

new distortions and it will be important to clarify whether, *e.g.* subsidising re-employment at low wages could blunt incentives for displaced workers to search for good job matches or to invest in on-the-job training in their new job. Similarly, there is the possibility that wage insurance will represent, in large part, a subsidy to workers who previously had the good look to hold jobs paying higher than competitive wages and compensation for the loss of such “rents” may not be considered an appropriate policy goal. The high levels of labour turnover and year-to-year earnings variability in the labour force (OECD, 2003a, Chapter 2), suggest that eligibility for wage insurance could potentially be quite broad and that ways would need to be found to target these payments on involuntary job losers for whom wage reductions represent a significant loss of earnings potential that are likely to have an important impact on their living standards. Finally, the large international differences in the risk that a trade-displaced worker will experiencing large wage losses once re-employed (*i.e.* as documented for Europe and the United States in OECD, 2005a, Chapter 1, Section 2) suggest that the suitability and most appropriate design of wage insurance will vary according to the national context.²²

France, Germany and the United States have recently introduced wage insurance programmes for certain displaced workers. These initiatives – which are briefly described in Box 1.4 – have yet to be subjected to careful evaluation. However, a pilot wage insurance programme in Canada provides some insight into the potential of these types of programmes to speed re-employment and better reconcile efficiency and equity objectives (Bloom *et al.*, 1999). The Earnings Supplement Project (ESP) was tested on two groups comprising a total of 5 912 individuals in 1995 and 1996. Two separate randomised experiments were carried out targeting displaced workers and repeat users of unemployment benefits. Beneficiaries who found full-time jobs within 26 weeks, at wages inferior to their weekly insurable earnings, were eligible for supplemental payments equal 75% of the earnings difference. A weekly maximum was set at CAD 250 and payments could be received for a maximum of two years. Results suggest that the programme increased the percentage of displaced workers who found full-time jobs by 4.4 percentage points, reflecting both a shift from part-time to full-time work, as well as an increase in overall employment. Programme designers expected the reduced job-search period and incentive to accept lower paid jobs to provoke a wage-suppressing effect. In fact, the wages of ESP participants were 4.6% lower than those of the control group (though this difference is not statistically significant). Overall public spending rose, because the modest labour supply effect was too small to reduce unemployment benefits by enough to fully offset the wage insurance payments.²³

22 . Wage insurance may have a role to play in European countries, even though few displaced workers become re-employed at wages significantly lower than those on their prior jobs, provided that reluctance to accept such pay cuts is an important explanation for why re-employment rates are low. For example, Burtless and Shaefer (2002) proposed a wage insurance scheme as being useful to counteract long-term unemployment in Germany. They argue that the high level of unemployment in that country is not due to high inflows into joblessness, but rather to low outflows caused by the negative incentive effects of the unemployment insurance system on re-employment rates.

23 . 20.5% of all ESP participants received the supplemental benefit.

Box 1.A3.3 Three examples of wage insurance

The French *Article R. 322-6 du code du travail, Arrêté du 26 mai 2004* provides for a system of wage insurance known as *conventions d'allocations temporaires dégressives* that was first introduced in 1999. Under this programme, workers displaced in a mass layoff who are re-employed on a permanent contract at a lower wage are eligible to receive a subsidy covering up to 75% of the difference in earnings between the new and previous jobs, up to a monthly maximum state contribution of EUR 153. The previous employer is also required to make a contribution to supplementing the new, lower salary. If the employer is unable to make such a contribution, the state's contribution can be raised to as much as EUR 229. This subsidy is available for a maximum period of two years.

Germany instituted a programme of wage insurance in 2003 (*Entgeltsicherung für ältere Arbeitnehmer*) which is limited job losers aged 50 years and older. Workers becoming re-employed in a new job paying less than their previous jobs are eligible for two types of earnings supplements. First, a payment of 50% of the earnings gap between the prior and new jobs is offered. Second, pension contributions on the new job are supplemented up to 90% of the level on the prior job. One notable aspect of this scheme is that no time limit is placed on these earnings supplements.

A wage insurance scheme for older trade-displaced workers was recently introduced in the United States. Since August 2003, workers at least 50 years of age who are certified as being trade-displaced workers and meeting all of the eligibility criteria for the Trade Adjustment Assistance programme may choose Alternative Trade Adjustment Assistance instead. This programme offers a wage subsidy to workers who start a new full-time job within 26 weeks of separation and who are paid wages below those on the previous job. Provided that the worker does not earn more than USD 50 000 per year in the new employment, a payment of 50% of the difference between the new salary and the old salary is paid, up to a maximum of USD 10 000 over two years. This subsidy is available for a maximum period of two years following the layoff.

Source: Information provided by national authorities.

D. Selected national examples of policies providing assistance to trade-displaced workers

Table 1.A3.1 provides brief summaries of a number of national examples of labour-market policies that are likely to provide considerable adjustment assistance to trade-displaced workers and other job losers facing similar barriers to re-employment at satisfactory wages. These examples illustrate the considerable and growing experience in OECD countries with labour-market programmes to facilitate structural adjustment. Much of the information provided in this table was provided to the OECD Secretariat by member governments in response to a data request circulated in May 2004.²⁴

24. Ricardo-Luis Tejada had the main responsibility for developing this questionnaire and processing country submissions.

Table 1.A3.1. **Selected labour-market policies providing assistance to trade-displaced workers**

A. Initiatives combining multiple services			
Country	Policy	Description	Source
Australia	Sugar Industry Reform Package, 2004	Provides retraining, JSA and other employment services to workers displaced due to reform of the sugar sector (including decreased tariffs). Announced April 2004. Comprises of up to AUD 444.4 million over 4 years.	Information provided directly to OECD
Australia	Textile Clothing and Footwear (TCF) Structural Adjustment Programme, 2005	Will provide assistance to workers displaced from the TCF sector as a result of tariff reductions, which is additional to that available via general labour market assistance arrangements (e.g. Newstart Allowance and services through Job network). Also provides funding to businesses in the TCF sector for investment and innovations to enhance their international competitiveness. AUD 50 million over 10 years. Operational from July 2005.	Information provided directly to OECD
Austria	Employment foundations (AST)	Provide occupational reorientation and upgrading of skills to registered unemployed who lost jobs in sectors experiencing restructuring. Key objective is to provide market-driven qualifications to meet local labour market needs. Programme pays special attention to older workers. In 2002, programme expenditure totalled EUR 5.4 million benefiting 4 413 persons.	<i>European Employment Observatory, 2002a</i>
Austria	Austrian Steel Foundation	Tripartite foundation providing job search assistance, vocational orientation, retraining, small business start-up assistance and other services to workers losing their jobs due to the rationalisation of the Austrian steel industry. Programme is notable for offering extensive training and formal education options (including multi-year courses of study). Financing via contributions by employers, programme participants and the government.	Evans-Klock <i>et al.</i> , 1998; Winter-Ebmer, 2003

Country	Policy	Description	Source
Finland	Joint Purchase Training	<p>Provides enterprises with tailor-made training options in situations where the enterprise needs new labour, wants to reorganise its production processes, and upgrade the skills levels of its personnel, or wants to train its personnel as an alternative to lay-offs or notices. Employer usually pays 40-70% and the labour administration pays the rest.</p> <p>In 2000, national labour market training by joint purchase accounted for 459 000 student days, 7.6% of all training purchased.</p>	<i>European Employment Observatory, 2002c</i>
France	Retraining Agreements (<i>Congé de conversion, 2001</i>)	<p>Offers workers involved in a mass-layoff immediate and individualised training and job-search support for a period of 6 months. Employers who hire a participant before the end of the 2nd month receive the balance of remaining allowances as subsidy. (To be replaced by the <i>PARE anticipé</i> during the course of 2005.)</p> <p>Only available to workers under 57 who have been employed for a minimum of 2 years.</p>	Information provided directly to the OECD and <i>European Employment Observatory, 2002b</i>
France	Retraining leave (<i>Mesures de Conversion</i>)	<p>Offered to companies with fewer than 1 000 employees that are undergoing restructuring. The measure offers job-search assistance, appraisal and guidance, and training or retraining. Minimum length of 4 months during which normal work contract is suspended. Employee receives a training stipend of up to 65% of their gross salary.</p> <p>Intended as a preventive measure to assist the reintegration of employees at risk to be laid-off, but little used (1 700 persons in 2004). Co-funded by French government, the European Social Fund and employers.</p>	<i>European Employment Observatory, 2002b</i>
Germany	Subsidies towards measures included in social plans	<p>Financial support granted as an incentive to employers to provide for certain preventive measures in a "social plan" established for employees threatened by unemployment. This encompasses skills assessments, job-search-skills training, vocational training, etc.</p> <p>Preventive measures aimed at safeguarding jobs and avoiding unemployment.</p>	Ministry of Economics and Labour
New Zealand	Work Track	<p>3-week programme providing job-search skills and techniques for jobseekers risking long-term unemployment.</p> <p>Targets 4 000 participants/year.</p>	Information provided directly to OECD

Country	Policy	Description	Source
United States	Trade Adjustment Assistance (TAA), 1962	<p>For trade-displaced workers meeting certain eligibility criteria, TAA provides unemployment benefits and re-employment assistance that are more generous than the schemes generally available to unemployed persons. A wage insurance scheme limited to older workers was recently added to TAA (see Panel G below), as well as a refundable tax credit for purchasing individual health insurance.</p> <p>See Box 1.3. for a fuller discussion of this programme and how it has evolved during the past four decades.</p>	Information provided directly to OECD and Kletzer and Rosen (2005).
B. Relocation and mobility grants			
Austria	Travel allowance	<p>Allowance paid to jobseekers who can not be placed in a reasonable job locally and are prepared to accept a employment requiring a lengthy commute. Allowance may include accommodation expenses and can not exceed EUR 183/month, less a deductible of EUR 61.</p> <p>In 2002, expenditure for this programme totalled EUR 1.5 million; 1 495 persons received travel allowance. A separate travel allowance for interviews also exists.</p>	<i>European Employment Observatory, 2002a</i>
Finland	Relocation Allowance	<p>Unemployed people can be granted relocation allowance if they are willing, on the advice of the employment authorities, to move to an area with a lack of labour in the field in which they are qualified.</p> <p>In 1997 a total of 12 500 allowances worth FIM 10 million were granted.</p>	Finish Ministry of Social Affairs and Health
France	Geographic Mobility Assistance (<i>L'Aide à la Mobilité Géographique</i>)	<p>Grants may be paid to those who accept a job over 25 km away from their residence or that requires a 2-hour daily round trip, expenses may be reimbursed up to EUR 1 897.</p> <p>Grants are made only to individuals offered a "permanent" contract of employment.</p>	Assédic, France
Germany	Mobility Allowances	<p>Pays expenses of up to EUR 300 for travel to take up job outside local area, provides travel and double household allowance of first 6 months of commuting between home and job outside local area. Pays removal costs for relocation to new residence outside local area if move takes place within 2 years of accepting job outside local area.</p> <p>EUR 224.3 million paid in mobility grants in 2002.</p>	Ministry of Economics and Labour

Country	Policy	Description	Source
Portugal	Geographic Mobility Incentives (<i>Incentivos à Mobilidade Geográfica</i>)	Incentives offered to unemployed persons accepting jobs more than 100 kilometres from their homes. Pays one off relocation grants of up EUR 5 000 and rental subsidies of up to EUR 416/month for up to 3 years. Subsidies also available to unemployed persons starting businesses.	Information provided directly to OECD and <i>Instituto do Emprego e Formação Profissional</i>
Sweden	Relocation grants (<i>Flyttbidrag</i>)	Grants offered to unemployed or workers at risk aged 25 and over. Grants cover removal or travel costs related to job search and starting a new job. Weekly travel allowance in connection with starting a new job can be granted for a 6-month period on a trial basis since 01/01/2001.	Information provided directly to OECD and Ministry of Industry, Employment and Communications
United States	Trade Adjustment Assistance	Covers up to 90% of "reasonable" moving expenses and a lump sum equivalent to three times the worker's average weekly wage, up to a maximum payment of USD 1 200. Relocation allowances and job-search assistance totalled USD 17.7 million from 2001-2004.	Information provided directly to the OECD
C. Start-up grants			
Germany	Bridging Allowance	Subsidies paid to persons receiving unemployment benefits who launch a business. The grants are equivalent to continued unemployment benefits plus social security contributions for 6 months. Approximately 185 000 entries in 2004.	German Ministry of Economics and Labour
Germany	Ich-AG (I-Inc.)	Subsidies paid to persons receiving unemployment benefits who launch a business equalling: i) EUR 600 the first year; ii) EUR 365 the second year; and iii) EUR 240 the third year. Approximately 170 000 entries in 2004.	German Ministry of Economics and Labour
Finland	Start-up grants	Grants for expenses incurred during start-up phase of new venture. Grants average EUR 650/month for up to 10 months. 3 800 grant-aided businesses started in 2003 (about 25% of total start-ups). 80% continue activities after five years.	Finish Ministry of Labour

Country	Policy	Description	Source
France	Support for New Business Development, 1999	Helps jobseekers create or restart a company by providing (interest-free loans) payable over a period of 5 years with up to 18 months payment deferral. Loans are for a maximum of EUR 6 098 and require 5% co-financing. Measure introduced end-1999.	Information provided directly to OECD and <i>European Employment Observatory</i> , 2002b
Greece	Subsidy Programme for Entrepreneurs	Subsidies of up to EUR 8 400 paid over 12 months to unemployed persons. 35% of programme expenditure reserved for long-term unemployed. Priority is given to women. Programme to cover 7 500 entrepreneurs.	Information provided directly to OECD
Japan	Subsidies for New Business Started by Beneficiaries of Employment Insurance	Self-employment subsidies to persons who were unemployed at the time of launch and whose business has survived for at least 3 months. Grant covers up to 1/3 of start-up costs during 3 months. Began February, 2003; budget: JPY 3 084 million (the 2004 fiscal year).	Information provided directly to OECD
Korea	Early re-employment allowance	Workers re-employed before exhausting their unemployment benefits receive a lump sum payment equalling 50% of the remaining benefits.	Information provided directly to OECD and New Zealand Department of Labour
New Zealand	Enterprise Allowance	Funding to job seekers aiming to set up their own business. Allowance is delivered as a weekly subsidy (of up to NZD 214 per week) available for up to 52 weeks. Up to NZD 5000 can be capitalised to cover initial costs of setup. About 3 800 participants by 2002; 70% of these had not re-registered within one year.	Information provided directly to OECD and New Zealand Department of Labour
Portugal	FACE, 2004	Financial aid granted for creation of self-employment to unemployed, workers at-risk of joblessness or in firms undergoing restructuring, recovery or modernisation.	Information provided directly to OECD
Sweden	Business start-up grants	Living allowances made to jobless individuals wishing to start a business. Payments made during start-up phase for of 6 months, extendible once. Payable at same rate as training allowance. 7 371 average grants awarded monthly in 2002.	Information provided directly to OECD

D. Employment subsidies			
Country	Policy	Description	Source
Finland	Employment subsidies	Employment subsidies to private firms for creation of new jobs. Targeted at wide variety of jobseekers including long-term and older unemployed persons. In 2003, a total of 21 180 jobs were subsidised in the private sector.	Finnish Ministry of Labour
Germany	Wage subsidies for established firms	Employers receive subsidies for hiring unemployed persons from groups facing particular barriers to finding employment, including long-term unemployed, handicapped unemployed and low-qualified unemployed. Subsidies cover a share of wage costs and social security contributions, with the amount and duration of the subsidy varying significantly according to personal characteristics. Approximately 170 000 participants in 2004.	German Ministry of Economics and Labour
Germany	Wage subsidies for newly created firms	Small business start-ups (up to two years old and up to five employees) may receive subsidies for hiring unemployed persons who have been in receipt of unemployment benefits for at least three months. Subsidies cover 50% of wage costs and social security contributions for up to one year. Approximately 20 000 entries in 2004.	German Ministry of Economics and Labour
Greece	Subsidy Program for Enterprises, 2004	Subsidies to private enterprises to hire registered unemployed 18-65 year-olds. Subsidies of EUR 18/day are paid to firms (18 months for SMEs, 24 for large enterprises) hiring disadvantaged persons, including older workers, and EUR 14/day for other unemployed. Job creation target of 15 000.	Information provided directly to OECD
Japan	Special Subsidies for Hiring Displaced Workers	Pays JPY 600 000 to employer (700 000 in growing sectors) for each displaced worker, aged 30 to 60, dismissed by employers undergoing "readjustment". Budget: JPY 110 000 million. First subsidy paid January 2003.	Information provided directly to OECD
New Zealand	Job Connection	Provides wage subsidy of up to NZD 380/week for up to 52 weeks, to a maximum of NZD 11 000. Subsidy covers wage costs, transport allowance and some overheads. Aimed at long-term unemployed.	Information provided directly to OECD

E. Public Sector Job Creation			
Country	Policy	Description	Source
Germany	Structural Adjustment Measures (terminated)	<p>Aimed to create temporary employment for workers in areas where local labour markets were threatened by structural adjustment. Offered monthly wage replacement benefits of up to EUR 1 075 for a maximum of 36 months, 60 if worker is aged over 55.</p> <p>Nearly 70 000 recipients in 2002. Operated primarily in eastern states where use peaked in 1999 with 180 292 beneficiaries.</p>	<i>European Employment Observatory, 2003a</i>
Italy	Socially Useful Work, 1993	<p>Public-sector job created in cultural heritage, environ-mental protection, urban renewal, research, vocational training and retraining, support for small and medium-sized enterprises in the form of services and help with marketing and exports, and personal services. The activities must be extraordinary and thus fixed-term in nature. Target group includes redundant workers and long-term unemployed.</p> <p>Under Legislative Decree No. 486/1997 refusal to do socially useful work may lead to the suspension of unemployment benefits.</p>	<i>European Employment Observatory, 1997</i>
F. Re-employment Bonus			
Japan	Support for early re-employment	<p>Support pays 40% of remaining basic allowance to those re-employed before 2/3 of prescribed term of benefits is exhausted. 30% is paid to those re-employed before 1/3 is exhausted.</p> <p>Began March 2003.</p>	Information provided directly to OECD
Korea	Early re-employment allowance	Lump-sum payment of 50% of the remaining benefits to unemployment benefit recipients starting employment (20 or more hours per week) before one-half of the maximum benefit duration has elapsed.	Information provided directly to OECD
United States	Re-employment bonus experiments, 1984-1996	<p>Pilot re-employment bonus programmes in four states with random assignment. The programmes offered of various rules concerning bonus qualification criteria and amounts and were intended to test whether the reduction in standard unemployment insurance benefits created by re-employment bonuses could exceed the cost of paying them.</p> <p>Results for three out of four of the states indicated that the bonuses tested were not "cost effective".</p>	Meyer (1995)

G. Wage insurance			
Country	Policy	Description	Source
Canada	Earnings Supplement Project, 1995-1996	<p>Pilot programme with random assignment offering earnings supplements to displaced workers, who started new full-time jobs at wages inferior to those on their previous job within 26 weeks of being laid-off. Payments equalled 75% of the earnings difference up to a maximum of CAD 250.</p> <p>Results indicate that wage insurance increased the percentage of unemployment benefit recipients who found jobs by 4.4 percentage points.</p>	Bloom <i>et al.</i> , 1999
France	Agreement on Temporary Digressive Allowance (<i>Convention d'allocations temporaires dégressives</i>), 1999	<p>Workers involved in a mass layoff may be paid a subsidy covering up to 75% of the difference in earnings between their new job and the previous, one up to a maximum monthly payment of EUR 153 (EUR 229 should the former employer be unable to make the contribution foreseen by the convention). This subsidy is available for a maximum of two years.</p> <p>EUR 4.57 in 2001.</p>	Information provided directly to OECD
Germany	Wage insurance program (Entgeltsicherung für ältere Arbeitnehmer), 2003	<p>Job losers aged 50 years and older becoming re-employed in a job paying a lower wage than on the previous job qualify for two types of earnings supplements: i) a payment of 50% of the wage gap between the prior and current job; and ii) pension contributions are supported up to 90% of the previous level. Both supplements are tax free and are not time limited.</p>	Information provided directly to OECD and <i>European Employment Observatory</i> , 2003b
United States	Alternative Trade Adjustment Assistance (ATAA), 2002	<p>Trade-displaced workers aged 50 years and older who are certified as being eligible for Trade Adjustment Assistance (TAA, see Panel A above) may instead opt for ATAA. For workers becoming re-employed on a full-time job within 26 weeks of having been laid off, ATAA payments cover 50% of any wage gap between the earnings on the new and old jobs for a period extending until 2 years after the trade-related layoff. Payments are subject to monthly earnings not exceeding USD 50 000 and cumulative ATAA payments not exceeding USD 10 000. Workers receiving ATAA are also eligible for a refundable tax credit for purchasing health insurance.</p> <p>To date, very little use has been made of the ATAA.</p>	Information provided directly to OECD and Kletzer and Rosen (2005).

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