INTRODUCTION: TOWARDS A COHERENT TRADE AND EMPLOYMENT POLICY

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In the era of globalization, most economists and policy-makers have asserted that trade liberalization has a strong potential to contribute to growth and that those effects will be beneficial for employment. This belief has strongly influenced the liberalization policies of the last 25 years, in multilateral, regional and bilateral settings. Yet survey evidence illustrates that negative perceptions of the labour market effects of trade are frequent and persistent among the population, particularly in the industrialized world but increasingly also in developing countries. Recent surveys show an increasing concern about income and job security (Milberg and Winkler, 2011). In the United States, 40 per cent of respondents to a recent survey expected that the next generation will have lower standards of living (Anderson and Gascon, 2007). Some 62 per cent said job security had declined; and 59 per cent said that they were having to work harder to earn a decent living. Surveys also show that concern about job security and job quality is often linked to increases in trade and foreign direct investment (FDI) in the perception of the public. Approximately 75 per cent of US respondents replied that "outsourcing overseas hurts American workers". Another survey shows that about half of North Americans and Europeans think that "freer trade" results in more job destruction than job creation (German Marshall Fund, 2007).

Those numbers, however, do not indicate that interviewees have an entirely negative perception of globalization. Indeed, evidence based on surveys that make a distinction between growth and employment impacts of globalization reveals

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that a majority of respondents in industrialized countries believes in the positive growth effects of globalization that are so often emphasized in the public debate. But they appear to doubt that growth effects also positively affect the majority of citizens. Indeed, recent survey evidence in European countries (Eurobarometer) indicates that in all but one of the 43 countries surveyed, the majority of respondents believed that globalization provides opportunities for economic growth but increases social inequalities. In all countries surveyed, the majority of respondents agreed with the statement that globalization is profitable only for large companies, not for citizens.

Also in developing countries, there is concern about the distribution of gains from trade. Relevant survey evidence is rare, but those conducting country-level work easily become aware of such concerns. This has also been the case in the context of the field work conducted for the European Union (EU)-funded project that has financed the publication of this edited volume. Workers and employers in Indonesia express concern about the effect of competition from cheap Chinese imports.[2] In Bangladesh, textile workers demonstrated in December 2010 because they had been denied payment of the legal minimum wage by their employers, which included powerful multinational companies.[3] In Guatemala, working conditions – including pay – in the exporting agricultural sector have been a subject of controversy for many years. Even in emerging economies with booming exports and strong growth figures, such as China and India, there is concern that trade does not deliver the expected miracle in terms of jobs. In China, the share in manufacturing employment has remained rather stable for the past ten years (Chen and Hou, 2009), notwithstanding massive annual increases in manufacturing exports, which have reached an average of 20 per cent growth per year in the period from 2000 to 2007 (WTO, 2008).

The Great Recession has increased concern among policy-makers that the crisis experience may strengthen negative perceptions of globalization. Indeed, concern about a possible backlash against globalization has risen and dominates part of the debate in the trade community. In an attempt to avoid such a backlash and to gather sufficient public support for further multi-lateral and regional trade liberalization, policy-makers are looking for answers to the question of why the employment and distributional effects of globalization have persistently been perceived as much less positive than the growth effects. During the period in which this chapter was written, there have been a multitude of statements and initiatives related to trade and employment linkages, including a statement by the Director-General of the World Trade Organization, Pascal Lamy, emphasizing the relevance of the employment impact of trade flows.[4]

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[2] See *The Jakarta Post*, 21 Jan. 2010 and 23 Apr. 2011. In the latter, the Chamber of Commerce calls for renegotiating AFCTA.

[3] See *Financial Times*, Asia Pacific Edition, 12 December 2010.

[4] *Neue Zürcher Zeitung*, 1 Dec. 2010.

The ongoing public debate reflects an effort to base arguments and statements on existing theoretical and empirical evidence on trade and employment linkages; however, that evidence suffers from a number of important shortcomings:

- First, the theoretical and empirical literature on the benefits of trade and trade liberalization has for a long time been geared towards analysing its growth and overall welfare effects. This is particularly true for quantitative work using simulation methods (e.g. computable general equilibrium (CGE) models), work that is often used as a point of reference for trade negotiators as it allows them to evaluate the economic effects of the negotiation positions they take. On the other hand, quantitative work focusing on the employment effects of trade is relatively scarce.
- Second, the public debate on trade and employment linkages generally clumps together the different channels or links without distinguishing clearly between such different aspects of "trade" as: trade liberalization measured by changes in the trade policy regime (reflected, for instance, in changes in the level of industrial or agricultural tariffs); trade integration measured by volume of exports or imports; trade openness measured by value of exports plus imports over gross domestic product (GDP); or the value of outsourcing or total flows of FDI. Yet all of these are quite different aspects of "trade". While the theoretical and empirical literature usually makes careful distinctions on the variables to measure these different aspects of trade policy or trade and investment flows, these distinctions are not successfully channelled into the public debate.
- Third – and reflected in the discussion in the paragraphs above – the existing evidence is still dominated by the labour market effects of trade in industrialized countries. As data availability improves, an increasing number of studies focus on developing countries; but data limitations remain severe for the poorest among them.
- Fourth, until recently, most of the theoretical and empirical trade work ignored major trade-related realities, such as the existence of trade costs and the role of individual firms in trade performance. This has dramatically changed with the arrival of the so-called new-new trade theory and empirical evidence based on firm-level data. There is a growing body of academic literature linking those new theoretical and empirical approaches to labour markets and to employment, but it is still in its infancy.
- Fifth, the existing work that links trade and labour markets tends to be based on strong simplifying assumptions concerning the functioning of the labour market. This is most strikingly reflected in the fact that most relevant work totally ignores the existence of an informal economy, although this often represents the majority of economic activity in developing countries. There is again a growing body of literature that tries to address this situation by building more sophisticated labour market structures into theoretical and

empirical models, but so far the existing evidence does not allow for general conclusions.

- Sixth, both the political debate and the analytical work systematically struggle with the fact that trade tends to affect different aspects of labour markets in parallel. In particular, trade tends to have an effect on both the quantity and the quality of employment, where the latter can take the form of wage effects or effects on labour conditions such as those regarding occupational safety and health. Arguably, citizens are interested in the combined effect on the labour market, but economists continue to struggle with the question on how to assess this combined effect.
- Seventh, evidence on how different combinations of trade and social protection and labour-market policies affect employment outcomes is scarce, if not absent. The popular debate on the need to design "coherent" policies is therefore largely based on an analytical and empirical void. The renewed interest in the positive role of government intervention – triggered by the Great Recession and a number of success stories in emerging economies – has led to a new wave of policy-related research that, however, so far does not provide clear guidance on what "coherent trade and labour policies" may look like. The one exception to this rule may be the emerging consensus that open economies should be characterized by strong social protection systems (ILO, OECD, World Bank and WTO, 2010; Jansen and von Uexkull, 2010; Paci, Revenga and Rijkers, 2009).

With evidence incomplete and scattered, experts nevertheless agree on one thing: trade-employment linkages depend on the specific trade channel considered and take different forms in different countries. Policy-makers who wish to design policies to optimize the benefits for their country should therefore ideally be able to base their decisions on country-specific evidence or – as a second best alternative – on evidence based on the experiences of similar countries.

In the light of the knowledge gaps discussed above and the consensus that policy advice should ideally be based on country-specific evidence, the chapter themes in this volume and their content have been designed with a threefold objective in mind. First, the book tries to contribute to filling some of the gaps discussed above by taking stock of the existing evidence on trade and employment with a focus on work using recent methodologies and datasets and on work that pays special attention to the functioning of labour markets. Much of the material discussed is based on country-specific studies and emphasis is put on a number of themes that receive relatively little attention in the mainstream trade and employment literature, such as the question of the gender aspects of trade or the link between trade and the informal sector. Second, the book tries to contribute to the design of tools that governments and experts – even in environments of poor data availability – can use to evaluate the employment effects of trade. Third, the book aims to contribute to the debate on coherent labour and trade policies.

This edited volume contains six chapters focusing on different themes. Chapter 2, authored by Margaret McMillan and Íñigo Verduzco, provides an overview of the most recent literature on trade and employment. It is followed by a chapter on the methodologies used to assess the employment effects of trade, which is authored by Bill Gibson. Chapter 4, by Anushree Sinha, focuses on the relationship between trade and the informal economy; the chapter contains an overview of existing evidence on this relationship and a discussion of different approaches and methods to assess the employment effects of trade in countries characterized by a large informal economy. In Chapter 5, Günseli Berik discusses the mechanisms through which trade may affect women and men differently, and provides an overview of the existing evidence on the gender-specific employment effects of trade. Chapters 6 and 7 deal with two different challenges frequently associated with trade liberalization. In Chapter 6, Joseph Francois, Marion Jansen and Ralf Peters provide a discussion of the adjustment processes following trade reform, with a particular focus on adjustments in the labour markets; measures to assess adjustment costs related to labour churning are presented and policies to address adjustment concerns are discussed. Last but not least, Céline Carrère, Vanessa Strauss-Kahn and Oliver Cadot examine the relationship between trade reform and the diversification of imports and exports; with poor countries being – on average – characterized by undiversified exports, their analysis of the drivers and impacts of diversification provides new food for thought on the possible role of governments in enhancing the growth and employment effects of trade.

Jointly, the six themed chapters in this volume contain a wealth of country-specific evidence – notably for developing countries – on trade and employment linkages. Individually, each of them provides useful contributions to the three objectives pursued by this book project. In the following section, we summarize some of the main insights that arise from a careful reading of the six chapters.

1.1 FROM MYTHS TO FACTS: FILLING KNOWLEDGE GAPS WITH NEW EVIDENCE

- Allocative efficiency depends on institutional settings

Trade reform is typically expected to lead to the reshuffling of production factors – such as labour and capital – from activities that have become uncompetitive to activities that have remained or have become competitive. In traditional trade theory, this reshuffling would take the form of a shuffling across sectors. In the new-new trade theory, it is competitive firms that absorb the production factors liberated by uncompetitive firms and this transition may take place between firms within the same sector (Melitz, 2003). A third alternative is that laid-off production factors end up being employed in the non-tradable sector.

Much of the welfare gains from trade are expected to emerge as an outcome of this reshuffling process as factors end up being allocated to activities where they are more efficient. McMillan and Verduzco argue in Chapter 2 of this book that allocative efficiency depends to a large extent on national institutional settings, an argument that has also been made in Haltiwanger (2011). Haltiwanger describes how well-functioning economies are characterized by a constant reshuffling of resources due to the fact that firms are constantly forced to adjust and adapt to changing economic circumstances. Such well-functioning markets are more likely to be found in developed countries and are – in theory – characterized by full employment. In such smooth markets, those that adapt well will survive and grow, while those that adapt and adjust poorly shrink and exit. In good economic times, and in well-functioning economies, this process – although associated with lay-offs of workers – typically does not result in long unemployment spells and instead tends to lead to increased earnings. In such a situation, globalization has the potential to lead to improved market selection, higher productivity growth and higher earnings growth for workers. Yet Haltiwanger (2011) also emphasizes that many things can go wrong in this reallocative process if economies are distorted, for instance if transportation or communication infrastructure are not sufficiently developed, if ineffective (or non-existent) competition policy does not prevent large firms from abusing their market power, or if financial markets are not sufficiently developed to fund new and expanding businesses. Haltiwanger argues that reallocation has little chance to be productivity enhancing in such distorted economic environments and that – in extreme cases – "de-coupling" may take place, i.e. cases in which policy reforms induce downsizing and exit of some firms but do not lead to the expansion of other firms. Long unemployment spells of workers may be the end result. Another result may be that the relative size of the productive segment of the economy shrinks rather than expands, as illustrated by McMillan and Rodrik (2011).

The theme of changes in factor allocation is also discussed in the sixth chapter of this book that is specifically dedicated to the adjustment process following trade liberalization. While most of the literature discussed in that chapter assumes that impediments to the adjustment process only temporarily create problems with resulting economic losses, already early contributions to the literature (Mussa, 1978) highlighted how the existence of adjustment costs may prevent production factors from being allocated to their intended activities. In economic terms, this would imply that the expected long-run equilibrium is never reached. Mussa's model, together with other contributions to the literature discussed in Chapter 6, therefore imply that the existence of market frictions or other adjustment costs can have significant welfare implications in the long run.

While most of the literature surveyed in Chapter 6 concludes that adjustment costs are minor compared to the long-run welfare gains from trade reform, new evidence discussed in McMillan and Verduzco (Chapter 2) and some of the models discussed by Francois, Jansen and Peters (Chapter 6) give reason to believe that adjustment costs should not be ignored and that there may be a role for governments in facilitating economic transition following trade reform. Labour market structures appear to be very important. Davidson and Matusz (2000) have shown that certain structures can lead to adjustment costs that offset gains to a significant extent. In the context of changing global trade patterns following the Great Recession, the question also arises whether governments may have a role in assisting the economy to adjust to the new global equilibrium.

Most of the discussion on allocative efficiency is predicated on the assumption of advanced economies where, under initial conditions, productive structures are relatively highly diversified and most of the labour force is employed. Under such conditions, the main challenge is the reshuffling between sectors or enterprises and related adjustment costs. While there are important insights in this literature, that apply to the formal sectors of all economies, this assumption does not correspond to the realities of productive structures and labour markets of most developing countries.

- Job creation in the exporting sector may be disappointing

In the past, economists tended to believe that workers displaced from activities that have become unprofitable after trade reform would be absorbed by the exporting sector where they would often end up receiving better pay. New empirical evidence indicates that the picture may be somewhat different. Two recent studies from Latin America show that job destruction may be higher than job creation, at least for several years after liberalization. Casacuberta and Gandelman (2010) and Muendler (2010) show that trade opening in Uruguay and Brazil resulted in higher job destruction than job creation. Displaced workers were not absorbed by the most competitive industries, but moved into non-trading sectors or out of formal employment. A reason why companies in expanding sectors do not increase their workforce is likely to be the increase of the average productivity in these sectors. Some supporting evidence has been found, by Menezhes-Filho and Muendler (2007) in the case of Brazil.

The study by Ebenstein et al. (2009) discussed in McMillan and Verduzco's chapter in this volume also indicates that absorption in exporting manufacturing sectors may be disappointing. In a study of the United States (US), they find significant employment reallocation in response to import competition and offshoring with both phenomena being associated with a reduction of employment in manufacturing. Consistent with Kletzer (2001), they find that workers who leave manufacturing to take jobs in the services sector suffer from a wage decline of between 6 and 22 per cent. In other words, workers displaced by trade or offshoring end up in less well-paid services jobs.

- The informal economy cannot be ignored

The evidence discussed in Chapter 4, written by Anushree Sinha, indicates that there is likely to be a two-way relationship between trade and informality[5]. On the one hand, trade reform is likely to have an effect on the size and the performance of the informal economy; while on the other hand, the existence of an informal economy is likely to affect an economy's supply response to trade reform. Sinha's overview of quantitative work analysing the first link – i.e. the impact

[5] See also the joint ILO-WTO publication by Bacchetta, Ernst and Bustamante (2009) on this theme.

of trade reform on the informal economy – provides examples in which trade has contributed to increasing the formal economy as well as examples in which the opposite took place. The mechanism behind the first result is that open markets lead to increased opportunities for firms in the formal economy with a resulting expansion of that segment of the economy. Conversely, the informal economy may increase, if trade leads to increased competition for formal firms, forcing them to become informal or to rely on informal production factors or suppliers in order to remain competitive. In her chapter, Sinha also describes the mechanisms through which the existence of a large informal economy may hamper the supply response to trade reform in developing economies. Lack of access to credit and skilled workers, together with inefficiencies due to the small size of firms that is typical in the informal economy, are among the most important factors that limit the possibilities of the informal economy from taking advantage of the opportunities of openness. Addressing informality may thus be a crucial element of strategies to increase the supply response to trade reform in developing countries, particularly in the least developed countries (LDCs).

- Trade does not necessarily reduce gender discrimination and may even reinforce it

In Chapter 5 of this book, Günseli Berik describes how trade expansion has brought a substantial increase in employment for women workers in developing countries in labour-intensive export-oriented industries since the mid-1970s. While these jobs have contributed to women's economic autonomy and status in the household, the conditions of work in these industries have been poor, marked by persistent low wages, gender wage inequalities, extremely long hours and job instability. In many poorer developing countries, employment opportunities created in these sectors have been the only formal jobs that many women could access and are perceived to be better than the alternatives of unemployment or work in subsistence agriculture. Despite narrowing gender wage gaps – due to increasing education levels – women appear unable to reap the full benefits of their rising education levels as the discriminatory part of the gender wage gap is persistent, or has even increased in some developing countries where trade has expanded. A possible explanation suggested in Chapter 5 for these wage trends is that trade liberalization is accompanied by other policies, and global processes, that undermine women workers' bargaining position in wage setting – even as women increase their schooling level relative to men. Decentralization of global production, increased corporate buyer and investor mobility, and increasing competition from other low-cost countries may adversely affect wage growth for workers who are concentrated in export sectors.

Berik describes that, after the initial benefits from trade expansion, women have been struggling in countries that have managed to combine strong export performance with significant growth rates. In East and South-East Asian countries that moved up the technology ladder and diversified exports, women's relative employment opportunities have declined. This outcome may be, just like the gains in the first place, partly linked to sectoral effects, as women may have limited job-specific skills in the new sectors. Another argument made by Berik is that these skill deficits interact with gender norms and stereotypes about women's weaker commitment to the workforce and lower need for income to shape employer hiring and placement decisions. Thus, the initial benefits for women from international trade may not be persistent without additional targeted policies and changing perceptions of gender division of labour in households.

- Country specifics determine how and to what extent trade liberalization contributes to increased diversification

The debate on export diversification is intimately linked to the debate on the growth effects of trade. In their seminal article on "stages of diversification", Imbs and Wacziarg (2003) showed that economies diversify as they grow until they reach an advanced level of income, at which point they start specializing again. The authors of Chapter 7 (Cadot, Carrère and Strauss-Kahn, 2011) in this volume have shown that a similar relationship holds for export diversification and income. In other words, wealthier economies tend to be characterized by higher levels of export diversification until they reach a certain level of income. In their chapter in this volume, the authors show that trade liberalization is typically followed by an increase in export diversification. But this effect is stronger in middle-income countries than in low-income countries. Thus, trade liberalization appears to support diversification but, in terms of diversification, countries with higher capabilities appear to benefit relatively more than those with lower levels.

The authors also find that, in middle-income countries, trade liberalization facilitates the consolidation of export positions in that it contributes to growth at the intensive margin (more exports of already-existing export products). In low-income countries, it instead contributes to growth at the extensive margin, i.e. the exports of new products. Indeed – and as pointed out by the authors – the poorest countries are often highly concentrated, and trade liberalization is therefore unlikely to contribute to increasing exports in sectors in which they already specialize (often natural resources).

There is, in fact, evidence that trade liberalization in poor country settings has led to loss of production and jobs in manufacturing (de-industrialization) as well as agriculture (Kwame Sundaram and von Arnim, 2008; Chang, 2009).

1.2 GENERATING FACTS: PROVIDING TOOLS TO GENERATE MORE EVIDENCE

Several of the chapters in this book contain detailed discussions on quantitative and qualitative methods to assess the employment effects of trade. In addition, the book dedicates one chapter especially to assessment methods. Chapter 3, authored by Bill Gibson, provides an exhaustive discussion of econometric and simulation methods that have been used in the economic literature to assess the employment impact of trade. The structure of the discussion allows readers to evaluate the quality and comprehensiveness of the employment-related information provided by assessment methods of different levels of sophistication. Gibson's chapter also contains information on data, software and modelling-skill requirements needed to implement the different methods. As such, the chapter aims to provide the reader with information on the different trade-offs at stake when choosing one method rather than another. The chapter provides useful information for policy-makers and national experts who wish to assess the employment impacts of trade in their own country.

- Using economy-wide rather than partial equilibrium methods

On the basis of his discussion, Gibson concludes that it is preferable to use economy-wide rather than partial equilibrium methods to evaluate the employment effects of trade. By focusing on a subset of sectors, partial equilibrium analysis carries the risk of painting an overly positive or overly negative picture of the employment effects of trade. The former may lead to too much complacency regarding the need for government policies to prepare economies for the challenges and opportunities inherent to trade reform; McMillan and Verduzco warn in their chapter against such complacency. An overly negative picture, instead, may lead to an anti-trade bias.

Sinha also argues in Chapter 4 in favour of the use of quantitative general equilibrium approaches to measure the employment effects of trade reform on informality. Though the informal sector is typically associated with the production of non-tradable goods, the various links between the formal and the informal sectors that are discussed in Chapter 4 imply that trade policy changes are typically not limited to one sector.

- Getting the micro-foundations right is important

Gibson also argues in favour of sound micro-foundations of models used to evaluate employment effects of trade. Countries differ in their labour market and other characteristics that are crucial in order for the benefits from trade to materialize. These characteristics should be reflected in models used to evaluate the employment impacts of trade and thus lead to country-specific evaluation exercises. Models not reflecting the economy at hand may produce wrong predictions. Getting the micro-foundations right is also important for the design of government policies. Like other economists, Gibson argues in favour of policies that act at the micro-level and directly address the incentives of individual economic actors. In order for such policies to be designed correctly, the incentive structure of individual actors needs to be thoroughly understood.

Gibson's chapter provides an overview of the different labour market assumptions that have been used in quantitative work, in particular in CGE models. The discussion in that chapter creates the impression that much more can be done to include more realistic labour market assumptions in simulations. One aspect that is crucial for developing countries is dealt with in detail in Anushree Sinha's chapter on trade and the informal economy.

- Modelling the informal economy

Due to the sheer size of the informal economy, assessments of the impact of trade on employment in developing countries should take the specific characteristics of this sector into account. Case studies are helpful to understand the links between the formal and the informal sectors. However, Sinha argues in Chapter 4 that it may be difficult to draw general conclusions from case studies and argues thus in favour of quantitative approaches. The development of CGE models that can be used as a tool for trade policy analysis is described in the annex of Chapter 4. In order to take into account the existence of an informal economy within such approaches, it is typically assumed that a formal economy and an informal economy co-exist, but that they differ in one or several aspects. In her chapter, Sinha presents and discusses different ways of modelling the behaviour of the informal economy within general equilibrium approaches. The informal economy may, for instance, be assumed to produce different products or to use different production factors than the formal economy. Production technologies may also be assumed to differ and the informal economy is typically assumed not to generate any tax income for the government. Ideally, the assumptions made regarding the behaviour of the informal economy should be adjusted to the country that is the object of the analysis.

- Assessing labour market adjustment following trade reform

Adjustment is the focus of Chapter 6, by Francois et al.; the discussion in that chapter reveals that there is a growing theoretical literature on adjustments in labour markets following trade reform. This literature has notably benefited from numerous contributions by Davidson and Matusz, assembled in their recent book titled "International trade with equilibrium unemployment" (Davidson and Matusz, 2010). Unfortunately, the insights from their work have – to our knowledge – not yet found their way into CGE exercises.

Nevertheless, standard CGE simulations generate information that can be useful for policy-makers concerned about adjustment costs of trade reform. As described in Chapter 6 of this volume, it is straightforward to generate information on the structure of employment, for instance in terms of sectoral allocation, before and after trade reform. This allows policy-makers to identify the sectors in which the most important adjustments take place. In addition, it is possible to generate estimates for the share of the workforce that is likely to have to change jobs as a consequence of trade reform. It is straightforward to generate those estimates with standard CGE approaches. Different options for generating the relevant values are presented in Chapter 6. The chapter also presents an overview of existing estimates based on those methods and for different preferential trade liberalization scenarios involving Latin American countries. Estimated values range from a displacement of less than 1 per cent of the labour force to as much as 17 per cent. While adjustment in labour markets may not be a concern in the first case, the second scenario certainly deserves policy-makers' attention. These findings also support the idea that estimates of labour market-related adjustment costs should become a standard element of CGE exercises, which simulate the economic effects of trade reform.

- Assessments should focus on the occupational rather than the industry level.

In Chapter 2 of this volume, McMillan and Verduzco make the point that when studying the impact of trade or offshoring on wages and employment, the industry level may be the wrong unit of analysis. If most of the downward pressure on wages occurs in general equilibrium, whereby wages equilibrate across manufacturing sectors very quickly, but not necessarily across larger aggregates, then industry-level analyses miss the most relevant effects of international trade on wages. In a recent paper, Ebenstein et al. (2009) find almost no industry-level wage effects; however, they do find significant employment reallocation in response to import competition and smaller employment responses to offshoring, while import penetration and offshoring are both associated with job losses in manufacturing.

To estimate the general equilibrium effects of trade and offshoring on wages, Ebenstein et al. (2009) calculate occupation-specific measures of offshoring, import competition and export activity. If labour market rigidities do not work through frictions in the reallocation of workers within manufacturing but – instead – between occupations (for example, if they are more likely to remain in the same occupation when they switch jobs), then occupation-specific measures of international competition are more appropriate for capturing the effects of trade and offshoring on wages. Their results suggest that this is indeed the case, and that international trade has had large, significant effects on occupation-specific wages. They find that, in the case of the US, a 1 percentage-point increase in occupation-specific import competition is associated with a 0.25 percentage-point decline in real wages. While some occupations have experienced no increase in import competition (such as teachers), import competition in some occupations (such as shoe manufacturing) has increased by as much as 40 percentage points with accordingly significant negative effects on wages. In line with other recent contributions to the offshoring literature, these findings therefore emphasize the need to work with occupation-specific data when evaluating the employment effects of trade and offshoring. Increased efforts should also be put into the systematic collection of relevant data.

1.3 COHERENT AND EVIDENCE-BASED POLICY-MAKING

- In most cases, strong social protection systems are preferable to targeted adjustment assistance

Labour appears to bear the bulk of the costs from the adjustment processes following trade reform. Trade reforms do not appear to have strong negative effects on unemployment rates, but costs for unlucky individuals can be substantial. Although trade competition does not target particular types of workers, evidence suggests that trade-displaced workers tend to be slightly older, have more tenure and higher earnings in their lost job. There is no strong evidence, though, of trade-induced unemployment being very different from unemployment caused by other shocks.

A further contributing reason to the evidence that the characteristics and unemployment spells of trade-displaced workers are similar to those losing their job for other reasons could be that trade liberalization does not necessarily cause entire non-competitive sectors to shrink and others to expand, but also causes labour churning within sectors. The authors of Chapter 6, therefore, develop indices measuring intra-sectoral employment movements.

Adjustment assistance, i.e. policy measures to mitigate the costs of adjustment from trade, can be designed to redistribute income or to increase efficiency, depending on the political goals. From an economic perspective, generally-available adjustment measures should be preferred over targeted trade adjustment assistance. Apart from the moral concerns as to why those affected by trade liberalization should be treated differently than those affected by other shocks, including those stemming from globalization as a whole, targeted assistance appears to have had rather mixed success in facilitating structural adjustment. It addition, it is nearly impossible to identify all workers adversely affected by trade liberalization.

The political economy argument – that there is more support for liberalization if adjustment assistance exists – is important, but may be less relevant if a strong social security system for the general public is in place. Very concentrated structural changes, such as mass lay-offs or regional concentration, may however justify specific trade adjustment assistance.

- Infrastructure and education are the foundation of economies' diversification potential

Econometric work presented in Chapter 7 by Carrère, Strauss-Kahn and Cadot provides interesting insights into the main drivers of export diversification. Not surprisingly, and consistent with other literature, they find that remoteness leads to higher export concentration, i.e. lower diversification. They also find that preferential market access positively contributes to export diversification, along both the intensive and extensive margins. Also, this result confirms findings in other related papers. Net inflows of FDI, on the other hand, appear to lead to stronger export concentration at the intensive margin.

A very important finding is that the quality of infrastructure and education levels are strongly correlated with export diversification. Given the public-good character of infrastructure and education, the authors of Chapter 7 therefore emphasize the key role of government-supported supply-side measures for trade and employment outcomes.

- Governments have a role in helping firms to survive or to grow …

Their analysis, in Chapter 7, of diversification patterns along the intensive or extensive margins, respectively, provides interesting information for those governments who consider targeting policy intervention towards specific sectors or subsectors. Export growth at the intensive margin – i.e. export growth in terms of higher sales of existing export products – contributes more strongly to overall export growth than growth at the extensive margin – i.e. export growth in terms of sales of new products. Thus, if governments are interested in export (and employment) growth, they should consider using policies that foster growth at the intensive margin, according to the authors. Export promotion can play a useful role in this, in particular if it is targeted towards overcoming collective action problems and assists firms in reaping the benefits of agglomeration externalities that appear to be inherent to exports. Bacchetta and Jansen (2003) and WTO (2006) provide useful insights into how export promotion policies can be designed that are in line with WTO commitments.

- … in particular, in the case of informal firms

Informal firms are disadvantaged, since trade tends to benefit larger and more productive firms, while informal firms are usually small and less productive. Since a high share of employment is in the informal economy, an average of 80 per cent in low-income countries and 40 per cent in middle-income countries, it can be beneficial to enable informal firms to benefit from trade. In Chapter 4, Sinha identifies capital mobility between the formal and informal sector as an essential factor. Wages in the informal economy are likely to increase with trade opening if capital is mobile, while they may decrease if capital is not mobile. Thus, policies facilitating access to capital for informal firms would have a positive impact on their productivity. Governments can also support small-scale informal entrepreneurial activities through training and marketing support, as well as by promoting better linkages between flagship exporting firms and local suppliers in the value chains. A major objective is to support formalization of informal firms, for instance, by addressing administrative and other barriers.

- Gender aspects of trade to be addressed through gender equity policies

A more equitable distribution of benefits from trade expansion can only be achieved if gender differences in employment are low with respect to the distribution among sectors, occupations and skill levels. If women are stuck in low-skilled low-paying jobs, the impact of trade will inevitably be different for men and women. An important policy recommendation for governments made in Chapter 5 is, therefore, to pursue general gender equity policies with the objectives to increase women's employment options through education, childcare provision and alleviation of unpaid workload, in order to improve the quality of jobs that are created through strong enforcement of labour standards, organizational adjustments in the workplace and infrastructure investments.

- Education and skills policies prepare the ground for the development of new export products

Intervening at the extensive margin is notoriously difficult, and the question of corresponding policies is often falsely associated with the question of whether governments are, or are not, well-placed to "pick winners". Since governments cannot pick winners with any certainty, the point is rather to set in place a process of self-discovery based on collaboration between public institutions and the private sector that can accelerate the accumulation of capabilities while providing feedback to correct mistakes and minimize their costs (Salazar-Xirinachs, 2010). The econometric analysis presented in Chapter 7 indicates that trade liberalization at the right stage of development can be another factor contributing to development of new exports in low-income countries, i.e. diversification at the extensive margin. Nevertheless, in many low-income countries, particularly numerous LDCs, exports have remained highly concentrated notwithstanding trade liberalization. To those countries who consider actively supporting the development of specific (sub-)sectors in this context, the authors signal that policies pursuing "little pushes" may prove to be more fruitful than attempts to land "big hits". They also warn that technology choice is crucial; in particular, they argue that the successful adoption of new technologies and production methods requires the availability of capabilities to master tacit knowledge needed to apply more sophisticated approaches.[6] Here again, supply-side interventions in the form of appropriate education and skills policies can make all the difference in terms of the actual trade outcomes of trade liberalization policies.

Training and education are also important if countries want to limit the widening of the skill premium that is caused by trade. McMillan and Verduzco argue in Chapter 2 of this volume that trade has been shown to increase wages of high-skilled workers relatively more than those of the low skilled. This is the case in both developed and developing countries, and governments that want to reduce this effect may work to increase the supply of skilled workers.

Woessman (2011) emphasizes in an ILO-WTO co-publication the important role of cognitive skills for long-run growth. Cognitive skills are the basic mental abilities we use to think, study and learn. They include a wide variety of mental processes used to analyse sounds and images, recall information from memory, make associations between different pieces of information, and maintain concentration on particular tasks. While cognitive skills can be strengthened at any stage of life, evidence presented in Woessman (2011) suggests that investments in early childhood education are likely to be particularly beneficial. This is the case, because education gained at one stage is an input into the learning process of the next stage, and the productivity with which investments at one stage of education are transformed into valuable skills is positively affected by the level of skills that a person has already obtained in the previous stages. Woessman (2011) also emphasizes that strong cognitive skills learned during school years facilitate lifelong learning in the sense of a constant adjustment to new technologies, and to change more generally. So-called soft skills are also important for employability (King, 2009). Many employers complain that the following skills are lacking: problem-solving skills; learning skills;

[6] See also the finding in Acharya and Keller (2007) that countries and enterprises with a higher absorptive capacity benefit more from foreign technology than those countries where a large proportion of firms is uncompetitive or in an infantile stage, and where absorptive capacities of new technologies are low because of weak human and financial resources.

communication skills; interpersonal skills; social skills, such as teamwork and also the sense of responsibility and devotion to work.

Governments also have a role in supporting the constant adaptation of the economy, and particularly of the workforce, to changes in the economic environment and new technological challenges. This can be done by developing policies and mechanisms that facilitate the matching between demand for and supply of skills, as outlined in ILO (2008) and in the G-20 training strategy developed by the ILO (ILO, 2010). Evidence indeed shows that successful economies have tended to be characterized by institutions and services that help workers and enterprises to adjust to change and by institutions and policies that anticipate and meet future labour market demand for skills.

1.4 PUBLIC PERCEPTIONS VERSUS POLICY-MAKERS' DECISIONS CONCERNING GLOBALIZATION

We started this chapter describing the discrepancy between public perceptions of globalization and policy-makers' action in this domain. Policy-makers' decisions in the domain of trade and FDI have led to impressive increases in trade and capital flows in the decades preceding the Great Recession. Preferential trade agreements and bilateral investment agreements were mushrooming in the years preceding the crisis. In the same period, however, surveys and media coverage provided evidence of rising concerns in civil society about the social effects of globalization.

The Great Recession has interrupted the pattern of continuous growth in trade and capital flows. It has also led to increases in protectionist sentiments and calls for more control of capital flows. In the industrialized world, the bailouts of banks followed by surges in unemployment and cuts in government spending are likely to have strengthened previously existing negative perceptions of globalization.

Policy-makers seem to have three options in this context. They can continue to do "business as usual" and continue to support trade liberalization strategies together with strategies that support global capital flows. Alternatively, they may succumb to protectionist pressures, i.e. stop supporting liberalization strategies or even raise new barriers to trade. A third alternative would be to opt for policy mixes that maintain open markets but are likely to generate broader benefits and stronger public support. Of the three alternatives, the third one is, in our view, the right one, but also probably the most challenging one, because it requires a more complex and balanced response from policy-makers and a more sophisticated understanding from the general public.

The experience during the Great Depression showed clearly that increased protectionism is a highly undesirable reaction to the recent crisis and to public discontent. Yet the recent crisis is unlikely to have been an ordinary hiccup of an otherwise healthy global system, and returning to "business as usual" may therefore not be a viable alternative either. Indeed, the contributions to this book provide plenty of evidence indicating that public concerns about globalization are unlikely to be purely based on misperceptions. McMillan and Verduzco's chapter provides evidence of trade liberalization leading to wage decreases in industrialized countries or misallocation of resources in developing countries. Berik's chapter provides examples of trade liberalization worsening the situation of female workers, and Sinha provides examples of countries where trade reform led to increases in informal employment. Francois et al. report evidence of cases where trade reform led to significant labour reallocation in individual economies. Each of those chapters also provides numerous examples of positive labour market outcomes of trade reform. Yet the examples of less-positive or even negative outcomes are – in our opinion – frequent enough to explain much of the discontent expressed by the public in opinion surveys or public debates.

The two easy alternatives – protectionism and "business as usual" – excluded, the third alternative remains. It is admittedly the one that is most challenging to implement, but it should not come as a surprise that acting in complex global markets and international relations requires sophisticated answers. Indeed, the recent failure of the financial sector illustrates the mistake of a simple market-driven solution and the complexity inherent in balancing public regulations and supervision when acting in a global and fast-changing environment. This may therefore be a good moment to pause, carefully think through what a coherent policy mix – delivering outcomes acceptable to majorities of voters – would look like, and rebalance policy approaches.

Policy rebalancing seems to be imperative in a situation where national public opinion and private sector players are struggling to adjust to the changes in global balances resulting from the crisis. Policy-makers need to develop more balanced packages of trade policies that recognize that one-size-fits-all solutions are not appropriate, and that sequencing and timing issues as well as relationships with complementary structural policies and conditions – such as education and skills – are fundamental.

The individual chapters in this book provide plenty of inputs for fresh thinking about appropriate policy mixes, and possible elements of such mixes have been outlined in the previous section of this introduction. A coherent set of policies should, in our opinion, pursue three objectives: (1) it should encourage structural change in a direction that is conducive to the creation of better jobs, and does not push large cohorts of the workforce into low-productivity jobs; (2) it should provide appropriate levels of protection to those going through particular hardship during adjustment phases; and (3) it should guarantee an appropriate distribution of the gains from trade.

The word "appropriate" already indicates that levels of protection and redistribution will probably end up being different across countries. It is quite straightforward to show in a median voter model that voters end up opposing trade liberalization if the gains from trade are distributed too unevenly (Boix, 2011). In a recent IMF paper, Kumhof and Rancière (2010) show that income inequality can represent a source of financial crisis. These are the types of situation that policy-makers should try to avoid. If ongoing waves of globalization and technological change contribute to an increasingly skewed distribution of incomes, this is a situation that should be addressed, as expressed in objective three. Reversing globalization and stopping technological change are not appropriate or even feasible answers. With an increasing amount of evidence that globalization weakens the bargaining power of workers (McMillan and Verduzco in this volume; Baccaro, 2008), redistribution without explicit government intervention is arguably increasingly unlikely. On the other hand, the redistribution tools at the disposal of governments may be limited in the context of global capital mobility and increasingly powerful global private players. The question, therefore, arises whether cross-border dialogue and a public-private sector debate on the question of redistribution are necessary to find solutions to this dilemma.

Strong and broadly targeted social protection systems appear to represent the answer to meet objective two. Evidence collected during the Great Recession is rather unanimous in its findings that countries with well-functioning social protection systems in place fared better during the crisis (Jansen and von Uexkull, 2010; Paci, Revenga and Rijkers, 2009). Such systems would also provide appropriate protection for the needy during adjustment processes following trade reform. Extensive research conducted in the 1990s and the early 2000s provides plenty of insights into the design of systems that provide protection while maintaining incentives to adjust. Social protection systems could be accompanied by special safeguards in trade agreements that allow economies breathing space when exposed to unexpected and significant changes in trade flows. Such safeguards do already exist in multilateral agreements (Bacchetta and Jansen, 2003) and similar provisions could be included in forthcoming multilateral, regional or other preferential arrangements. Governments may also consider choosing carefully the timing of trade liberalization. Trade reform in the context of economic depression may make adjustment processes unnecessarily harsh or lead to decoupling, as mentioned above. It may also unnecessarily raise public discontent against liberalization, as suffering induced by the business cycle may be attributed to the government's trade policies.[7]

The role of governments in directing structural change and promoting productive transformation (objective one) is the subject of the traditionally controversial debate around industrial policy that is currently enjoying a revival, albeit sometimes under different names (e.g. promoting competitiveness, new industrial policy, structural transformation, economic diversification). Findings presented in this volume support the idea of a role for the government in terms of providing public goods like infrastructure and education. But when it comes to implementation, financially restricted governments will automatically have to set priorities regarding which types of infrastructure and where, and regarding which types of education and how. Such priority setting is likely to result in favouring the development of certain sectors or regions over others. It is also very likely that priority setting in one domain (e.g. ed-

[7] As happened in Canada in the context of NAFTA, according to Gaston and Trefler (1997).

ucation) will only bring significant spin-offs if it coincides with matching developments in other areas (e.g. technology). Examples of coordination failures in the domain of skills and technology are numerous, as illustrated by the co-existence of skilled unemployment and vacancies for skilled workers in numerous countries. The fact that imported technologies need to find a matching capacity base in order to trigger growth has been mentioned above. This conclusion finds support in the observation that successful globalizers, such as China, Costa Rica, the Republic of Korea and Viet Nam, have invested in expanded access to education and vocational training while at the same time linking those policies with their trade and sectoral support strategies. Skills and education policies that support broad access to education and are imbedded in a system that facilitates the matching of demand for and support of skills are therefore likely to be key elements of modern versions of industrial policy.

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