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Contemporary Views on Welfare and Reforms

2.1 The Concept of Welfare in the Twenty-First Century

The traditional neoclassical approach to studying welfare is to focus on Pareto optimality as a criterion for welfare maximization. The debate on what welfare is, how it can be measured, and how it can be used for applied economic analysis has been ongoing at least as far back as Marshall's *Principles* (Marshall 1890) and his successor at Cambridge, Pigou's *The Economics of Welfare* (Pigou 1920). During the 1930s, the cardinal approach evolved into using ordinal utility functions, perhaps due to the contributions of Robbins in his critique of the Cambridge school (Robbins 1932).

The utilitarian approach is admittedly too narrow to capture the significant aspects of welfare other than consumption per capita driven by income per capita and relative prices. That is why the more recent neoclassical treatments, e.g. Atkinson (2011), and some heterodox approaches (Gowdy 2004; Munda 2016; Ng 2003; Schubert 2012) expand traditional utilitarian welfare economics in important ways. For example, Ng (2003) proposes the introduction of happiness as a direct

measure of welfare, and Gul and Pesendorfer (2007) advocate for measuring “true utility” as a gauge of happiness in a subjective sense as opposed to “choice utility” which, according to the authors, is plagued by internal inconsistencies. In addition, Gowdy (2004) engages in a discussion of whether altruism has any place in welfare conceptualization, and Schubert (2012) acknowledges the inherent dynamics of preferences and the importance of learning at the individual level to adequately measure welfare over time. A more recent discussion by Munda (2016) proposes the use of different metrics of welfare for different theoretical and empirical purposes, rather than an all-encompassing single measure.

As a result, the debate on the essence and limitations of the concept of welfare, which has been active at least since the 1930s and 1940s (Samuelson 1943; Stigler 1943; Wolfe 1931), has moved far beyond the traditional orthodoxy. Holcombe (2009, p. 209) reviews the debate and concludes that “no economist would argue that people are materially better off today than a century ago because the economy is closer to Pareto optimality.” To effectively conceptualize welfare, contemporary authors suggest a focus on factors that improve well-being over time (Sen and Nussbaum 1993; Fleurbaey 2009).

The factors leading to improved well-being are not themselves viewed in unanimous ways. In a perhaps reductionist fashion and for purely empirical purposes, the contemporary literature represented most recently by Jones and Klenow (2016) has narrowed the numbers of these factors to four: (1) an increase in consumption per capita and (2) leisure over time, (3) gains in life expectancy (reducing mortality, respectively) and (4) a reduction in income and consumption inequality. The motivation to focus on those four elements of “consumption-equivalent” welfare is twofold. First, the authors assert that “standard economic analysis is arguably well-equipped to deal with” these welfare measures (Jones and Klenow 2016, p. 2426). Second, these measures are included in a larger set of recommendations to improve welfare measurement, as suggested by Stiglitz et al. (2009).

Jones and Klenow argue that, across their sample of both developed and developing countries, the correlation between the traditional GDP/c. measure of welfare and their novel measure is 0.98 in levels (Jones and Klenow 2016, p. 2427) and 0.97 in growth rates (Jones and Klenow

2016, p. 2444). In a narrow-minded statistical sense, then, it appears that the GDP/c. and the Jones–Klenow measure are virtually indistinguishable. However, there are important economic and behavioral differences between the two indicators which the pure correlations fail to spot. For example, according to the authors, the average GDP/c. in Western Europe is about 67% of the one in the USA, but when the additional leisure time, the longer life expectancy and the lower income inequality in Europe are taken into account, welfare in Western Europe appears much closer to that of the USA (p. 2427).

The opposite is true for the developing countries, where GDP/c. appears closer to the one in the developed world than their actual welfare. The Jones–Klenow welfare measure in developing countries is considerably lower than GDP/c. suggests because of the much lower life expectancy and the significantly higher income inequality in those countries. Therefore, we can safely accept that GDP/c. is different from the contemporary understanding of welfare in important ways.

Nevertheless, ignoring living standards measured by per capita income in a study of welfare would be unwise for at least three reasons. First, the traditional welfare measurement across countries and over time has focused on GDP/c. as perhaps the single most important factor behind increases in welfare, however imperfect a measure of welfare it admittedly is. Second, using GDP/c. is convenient from an empirical standpoint for international comparisons. This is because GDP/c. is available for virtually all internationally recognized countries and territories. In some cases, the data availability goes as far back as the 1950s, and in most cases, the data begins in the 1960s or 1970s. Using a longer historical comparison across countries is important because data on economic freedom reforms goes back to the 1970s as well. Therefore, boosting the time span for the welfare data also improves the credibility of any study relating welfare to market reforms, including this one.

Third, GDP/c. provides a useful reference point for the additional measures of welfare outlined above. By studying how economic freedom reforms affect living standards and growth rates across countries and over time, we set up a benchmark against which we can compare the effects economic freedom has on other welfare measures. This kind of comparison

across welfare measures would not be possible in the absence of GDP/c., although consumption per capita provides a good substitute.

Consumption per capita, however, is more appropriate as a complement to GDP/c. rather than a substitute. The reason is that some countries may experience a take-off period due to high investment rates. As a result, their welfare would increase if measured by GDP/c. but will be stagnant if measured by consumption per capita. As these two measures potentially capture different welfare dynamics over time, it would be interesting to see if market reforms affect them differently, and if yes, how.

If we agree to include per capita consumption as a welfare gauge, we also agree with including the other two measures proposed by Jones and Klenow: life expectancy and income inequality. Despite the fact that average incomes within some countries grow, the way this growth is distributed across income groups may vary significantly from one country to the next. This will not only lead to rising within-country income inequality, but will also deepen global income disparities. In turn, as we will see in the last chapter, this may produce undesired political consequences in the long term.

Influential studies have documented the significant differences in both life expectancy (Becker et al. 2005; Peltzman 2009) and income inequality (Piketty 2014; Piketty and Saez 2014), among others, across countries and over time. Therefore, both of these measures are well suited to complement GDP/c. and consumption per capita as measures of welfare. The measures discussed by Jones and Klenow which I leave out of this study for data availability reasons are leisure and environmental quality. These two indicators could perhaps be incorporated in future empirical studies of how welfare depends on market reforms. The literature on this dependence is reviewed next.

2.2 Theories and Evidence on How Reforms Affect Welfare

Economists around the world have long been working to model the relationship between economic freedom reforms and changes in welfare. A recent broad review of the literature is produced by Hall et al. (2015).

Most studies focus on income and growth, and their dependence on various institutional determinants, including the elements of economic freedom. For example, Açemoglu et al. (2005) review a set of historical examples and develop a theory of dynamic institutional change in which political power and economic resources are key in further development of market-friendly property rights and other institutions. They put forward the argument that “economic institutions encouraging economic growth emerge when political institutions allocate power to groups with interests in broad-based property rights enforcement, when they create effective constraints on power-holders, and when there are relatively few rents to be captured by power-holders” (p. 385). That is why, they assert, efficient institutions stand at the foundation of modern economic growth.

Alfonso-Gil et al. (2014) provide a very long-term presentation of how liberties in general correlate with economic growth for a sample of 149 countries between 1850 and 2010. They present dynamic panel data evidence that, in the long term, civil liberties are positively associated with economic growth. As much as the long-term picture is informative, it does not allow inclusion of other potentially important institutional factors for growth. By shortening the time span, other authors do exactly that. For example, Fabro and Aixalá (2012) study a sample of 79 countries between 1976 and 2005. This study provides evidence that economic freedom, civil liberties and political rights “are important for economic growth either through a better allocation of resources or, indirectly, through the stimulation of investment in physical and human capital” (p. 1059). A methodologically improved treatment of the relationship is offered by Faria and Montesinos (2009). Rather than running simple OLS regressions, they provide instrumental variable estimations in which more economic freedom has a causal impact on growth and development.

This is in line with many previous findings in the empirical literature, e.g. Gwartney et al. (2004), Nyström (2008), Mijiyawa (2008), among others. Their results imply that, based on the empirically established positive link between economic freedom, capital accumulation, entrepreneurship, and growth, policy makers need to pursue a policy agenda of raising economic freedom, including improving property rights.

Based on the empirical studies above, it is expected that the institutions of economic freedom would improve resource allocation and would

therefore help capital accumulation. As a result, they would also raise living standards and may also accelerate growth, as the earlier evidence by Assane and Grammy (2003), de Haan and Sturm (2000), Doucouliagos and Ulubasoglu (2006) and Justesen (2008) suggests. However, better resource allocation and capital accumulation alone are not sufficient to spur growth, according to Hall et al. (2010). By developing a growth theory in which capital productivity and allocation depend on local institutions, they conclude that “increases in physical and human capital lead to output growth only in countries with good institutions. In countries with bad institutions, increases in capital lead to negative growth rates because additions to the capital stock tend to be employed in rent-seeking and other socially unproductive activities” (p. 385).

The above study is one of the many accounts where the intuitively expected positive effect of institutions and of economic freedom on welfare is jeopardized. For example, Xu and Li (2008) provide additional evidence on the effect based on data from 104 countries between 1972 and 2003. They conclude that the expected positive effect of economic and political freedom on growth is “realized and detectable at later stages of social and economic development” (p. 183). Babecký and Campos (2011) also document a “remarkable variation” in the effects of overall reforms on growth by conducting one of the largest meta-studies in the reform-growth literature. Campos and Horváth (2012) explain the variations in the reform estimates by how the reform indices are measured in the first place.

Irrespective of how the freedom indices are measured, it will soon become clear that there is no single economic freedom that affects welfare in a linear way. This means economic freedom may provide the necessary conditions for increasing welfare but, more often than freedom advocates would like to admit, is hardly sufficient to affect growth, consumption, life expectancy, and income inequality in positive ways in the long run. This is because various nations adopt different institutions of economic freedom at different stages of development, and even identical institutions may lead to very different welfare implications. Merlevede (2003), among others, finds that an economy closer to a market economy will benefit more from introducing a market-oriented mechanism. What stands behind the difference in the effects of those mechanisms is how reformers enforce

newly adopted rules and norms over time. It is relatively easy to transplant institutions, but then adherence to them makes the welfare difference, according to Crafts and Kaiser (2004).

Further studies narrow down the empirical focus on specific economic freedom measures. For example, Rode and Coll (2012) identify areas of economic freedom which matter more for growth than others. They also identify reforms which could potentially have a long-lasting effect on growth, and others which exert only a short-lived impact. They conclude that improving the legal structure and the security of property rights has a long-lasting positive effect on growth. At the same time, according to the authors, the size of government and labor market regulations have an inverse relationship with growth, at least in the short term. Williamson and Mathers (2011) also test for the significance of the economic freedom variables, but add another possibly important dimension to the growth regressions—the impact of culture. They conclude that culture is important for growth, but once economic freedom is taken into account, the impact of culture is gradually diminished. This suggests a plausible supremacy of economic freedom over culture in igniting economic growth.

Economic growth has been shown to be positively related to economic freedom in general on a panel of countries by Wu and Davis (1999). This early evidence has spurred a considerable attention to the overall relationship between freedom and growth. For example, Karabegovic et al. (2003) study the within-country evidence of how economic freedom affects the level and growth of economic activity based on 10 Canadian provinces and 50 US states. They conclude that economic freedom is positively associated with both at the state level. Their results are confirmed later by Murphy (2016) and Barnatchez and Lester (2017). Paldam (2003) presents the cases of the five Southeast Asian countries that have managed to raise themselves out of poverty since the 1950s: Japan, Hong Kong, Singapore, South Korea, and Taiwan. He finds that virtually all five countries have adopted economic freedom reforms on their way to becoming rich.

Bengoa and Sanchez-Robles (2003) review the Latin American evidence, and Fidrmuc (2003), Kenisarin and Andrews-Speed (2008) and Peev and Mueller (2012) do the same for Central and Eastern Europe (CEE). All three studies support the previous findings of a positive

relationship between freedom and income levels and growth. Bengoa and Sanchez-Robles (2003, p. 529) add that the “host country requires, however, adequate human capital, economic stability and liberalized markets to benefit from” increased levels of overall economic freedom.

The dependence of other welfare measures on economic freedom has also been extensively studied. Carter (2007) examines evidence of the role of economic freedom in income inequality dynamics. Based on a sample of 39 countries totaling 104 observations, he finds support for the hypothesis that economic freedom reduces income inequality. However, the effect is found to be different across different levels of economic freedom, which means the effect may be nonlinear.

This is confirmed by Apergis (2015) and Apergis and Cooray (2017), who provide more recent evidence on the effect of economic freedom on income inequality. For low levels of economic freedom, raising freedom increases inequality, while for high levels of freedom, introducing further reforms makes economies more equal. An early attempt to generalize the argument of a non-monotonic impact of property rights and other institutions on welfare was carried out by Morris and Adelman (1989). They were among the first to conclude that institutions are indeed very important at early stages of development, but the way institutions and the economic dynamics interact is very different across various development stages, a result which was later confirmed by Xu and Li (2008).

For example, for some regions of the world, there is conclusive evidence that market reforms raise income inequality. The evidence for Africa is provided by Enowbi Batuo and Asongu (2015). This is, perhaps because most African countries have low levels of economic freedom in the first place. The evidence is consistent with that of Apergis (2015). Bennett and Vedder (2013) examine US state data between 1979 and 2004. Their data demonstrates the non-monotonic relationship between economic freedom and income inequality. They add evidence that even within a single country the relationship can have an inverted U-shape. Consistent with previous evidence, they also find that states with a higher initial level of economic freedom decrease income inequality more than states with lower initial levels of freedom. In addition, they estimate that furthering market-oriented reforms can produce higher income inequality for the US states with lower initial levels of economic freedom.

As will be demonstrated in this book, the evidence based on a longer time span and international data is also mixed, as has been previously shown by McCleery and Paolis (2008).

The literature above has demonstrated that **an overall nonlinear association between economic freedom and welfare exists**. This is confirmed for each of the five measures of economic freedom as well. In theory, **government intervention** has an ambiguous effect on growth. Barro (1990) derives an augmented endogenous growth model with government services. As predicted by the crowding out effect, his paper concludes that government consumption expenditures reduce growth and saving, while productive government expenditures generally increase them, at least in the short run. Bajo-Rubio (2000) generalizes Barro's argument and concludes that, indeed, the link between per capita growth and the size of government is non-monotonic.

A plausible reason is outlined by Anshasy and Katsaiti (2013). They find that the size of government rarely matters for growth, but the degree of procyclicality does. They also take the degree of procyclicality as a measure of the quality of fiscal policy management. In other words, they conclude that it is not the size but the quality of government that matters for welfare. A further related explanation for this non-monotonicity is offered by Cooray (2011). The author finds that the quality of government is positively correlated with financial sector development, which in turn matters for growth. At the same time, larger governments reduce the efficiency of the financial sector.

Larger governments are also associated with more corruption, especially in developing economies. This is found, for example, by Kotera et al. (2012), who study this relationship for both developing and developed economies. Their sample consists of 82 countries and runs from 1995 to 2008. They find that "government size can lead to a decrease in corruption if the democracy level is sufficiently high and, in contrast, can lead to an increase in corruption if it is too low" (p. 2340). Therefore, another plausible explanation for the nonlinear effect of the size of government on welfare is that, perhaps, voters in older democracies can tolerate larger governments because their governments provide sufficient quality of services for both citizen and businesses. As a result, despite the larger government, growth is supported in well-developed democracies. However,

in underdeveloped countries and in new democracies, larger governments are used to, among other things, allocate resources from private businesses to political insiders and vice versa. At the same time, significantly improving the quality of public services is not high in the priorities list of the governments in underdeveloped countries and in new democracies. As this leads to a significant crowd-out effect, in those countries larger governments do not lead to higher growth.

This logic is supported by additional evidence from Guseh (1997), Wu et al. (2010) and Yamamura (2011). Guseh (1997) differentiates the effect of government size on growth across economic and political systems. He finds that “growth in government size has negative effects on economic growth, but the negative effects are three times as great in nondemocratic socialist systems as in democratic market systems” (p. 175). The evidence by Wu et al. (2010) is also mixed. They observe that larger governments increase growth, but not at lower levels of development. In support of this evidence, Yamamura (2011) concludes that larger government size leads to lower capital accumulation in non-OECD countries, but does not lead to significantly lower capital accumulation in the OECD countries themselves.

Contrary to that evidence, Fölster and Henrekson (2001) and Dar and Amirkhalkhali (2002), among others, detect a universal crowd-out effect. They conclude that the size of government has a negative correlation with growth not only for developing but also for developed countries, including the OECD. However, Agell et al. (2006) respond with criticism to Fölster and Henrekson (2001). Agell et al. (2006) believe that in a cross-country setting it is very difficult to find any robust effect of government intervention on growth. This conclusion is supported in this book, which produces additional evidence of a non-robust effect of government size on growth and other welfare dynamics.

Larger governments may also reduce output volatility, which can also affect other welfare dynamics. This is suggested by Fatás and Mihov (2001) based on a sample of 22 OECD countries and 50 US states, and by Jetter (2014) based on a larger panel of 90 countries. Fatás and Mihov (2001) find that “a one percentage point increase in government spending relative to GDP reduces output volatility by eight basis points” (p. 3). Jetter (2014) adds to that evidence and concludes that governments play

a different role for stabilizing the economy depending on their political regimes. In democracies, output volatility is predictive of lower subsequent growth, while in autocratic regimes governments manage to carry forward a growth-enhancing political agenda after episodes of output volatility. Carmignani et al. (2011) go one step further and outline areas of government intervention which may be beneficial for mitigating output volatility. Those, according to the authors, “include domestic political institutions, de facto central bank independence and a stable nominal exchange rate regime” (p. 781).

Overall, there is no single recipe for how much government is optimal for both output growth and longer-term stability. In democracies, it seems the optimal size of government is different from that in autocracies. The literature also suggests that in developed economies more government may lead to higher growth, while in less-developed economies this is not the case. At the same time, there is evidence that in well-established democracies, more government means poorer responses to output volatility, while stronger governments can potentially mitigate output volatility in non-democratic societies. Ultimately, as suggested by Facchini and Melki (2013), the optimal size of government is not universal and would be country-specific.

Similar conclusions can be reached for the second element of economic freedom: **property rights (PRs)**. Some studies identify the origins of improved property rights, whereas others focus on the link between better property rights and welfare. Lagerlöf (2013, p. 312) offers one explanation for the origin of better property rights: “faster technological progress can lead to a decline in violence and improved property rights protection, similar to the path followed by Europe” over the course of economic history. Sonin (2003) studies those mechanisms for Russia to explain why a country which becomes a market-oriented economy may quickly turn its policy agenda to a bad equilibrium: The elite chooses poorly protected PRs and substitutes them with privately protected PRs, a story advanced also by Açemoglu et al. (2005).

A paper by Sunde et al. (2008) offers an explanation for the reasons democratic institutions produce various qualities of rule of law and PRs. They claim that democracy leads to better rule of law only when income inequality is low. As this book shows, income inequality rose differently

across Central and Eastern European nations during their transitions since 1989. In turn, the difference in inequality expansion might be able to explain why almost identical institutional reforms at the onset of the transition have led to dramatically different institutional qualities some 25 years later.

As Ogilvie and Carus (2014, p. 403) point out, “economic history has been used to support both the centrality and the irrelevance of secure property rights to growth, but the reason for this is conceptual vagueness”, an issue also discussed by Haggard and Tiede (2011). Both teams of researchers call for a much more detailed understanding of the structure of property rights before the effects of property rights on welfare can be disentangled. Further, Haggard and Tiede (2011) claim that the effects of PRs protection are ultimately uncertain, though the property rights literature does shed light on those effects.

One example of a theoretical work to study the effects of property rights on welfare is that of Gradstein (2004). He asserts that higher levels of economic development lead to the establishment of better property rights and also that stronger property rights reinforce economic development and welfare. Therefore, we can safely assume that the level of PR protection is endogenous to growth and welfare in general.

To understand the impact of PRs in a more detailed way, Kapeliushnikov et al. (2013) take on some of the PR measurement issues and find that PRs are important for generating positive growth in a transition economy, provided other institutional factors are already in place. Voigt and Gutmann (2013, p. 66) bring a bit more detail into those factors and advance the argument that “the mere promise of secure property rights is unlikely to have any effects unless accompanied by some commitment to enforce these rights.” According to the authors, a credible commitment device is, for example, an independent judiciary that has the constitutional rights to enforce protection of PRs. In two related papers, they extend the argument by distinguishing between *de jure* and *de facto* independent judiciaries, and then testing for their effects on growth. Feld and Voigt (2003) do the first part of the analysis, while in a later work they find that *de jure* judicial independence (JI) “is not systematically related to economic growth, whereas *de facto* JI is highly significantly and robustly correlated with growth” (Voigt et al. 2015, p. 197).

A significant part of the more recent literature deals with the growth effects of intellectual property rights (IPRs) protection. Mondal and Gupta (2008) present a general equilibrium model in which strengthening IPRs has a mitigating effect on unemployment only under certain conditions and would normally have a negative effect on innovation. At about the same time, Furukawa (2007) extends the endogenous growth theory literature with IPRs. His conclusion is that strengthening IPRs does not necessarily generate a positive effect on growth, especially in a rapidly integrating world. Gancia and Bonfiglioli (2008) build on this line of argumentation to find that, indeed, if a weak-IPR country is integrating with a strong-IPR country, then the innovative activity in the strong-IPR country declines.

Another factor which may contribute to the differences in the PR effects across countries is trade. Early evidence that more open economies benefit more from improving property rights has been published by Gould and Gruben (1996). Dinopoulos and Segerstrom (2010) build on this evidence with a model of North–South trade, in which improving IPRs in the South leads to a permanent increase in wages, employment, and innovation activity in the South. At the same time, the North does not benefit much from improving IPRs in the South. However, it would be interesting to see how this models fares against evidence of winners and losers from the Great Recession. This is because, if we look at the European experience per se, it seems that growth in the technologically less-developed South, not the advanced North, has been lower in the aftermath of the Crisis.

To this end, Manca (2010) presents evidence that the strengthening PRs has the potential to slow down the income convergence process, especially for countries far from the technology frontier, because much of the innovation in those countries is accomplished through imitation. However, stronger PRs raise the costs of imitation. Then, if a country lacks the capacity for substantial product or process innovation, stronger PRs will slow down their convergence. This logic is consistent with Chu et al. (2014, p. 239) who develop an intuitive explanation for the reasons IPRs affect different economies differently. They bring forward the argument that “optimal intellectual property rights (IPR) protection is stage-dependent. At an early stage of development, the country implements weak IPR protection to facilitate imitation. At a later stage of development, the

country implements strong IPR protection to encourage domestic innovation. Therefore, the growth-maximizing and welfare-maximizing levels of patent strength increase as the country evolves towards the world technology frontier.” Jordan (2001) goes one step further and is among the first to advocate total removal of IPRs. He argues that “protections often taken for granted—patents, copyrights, and other intellectual property rights—are largely unknown or are ineffective in many places in the world today. Without such protections, incentives for creative talents to design and develop new products and services are substantially weakened” (p. 20).

Apart from output growth and income per capita growth, other elements of welfare are also found to depend on property rights. For example, Chu and Peng (2011) set up a growth model with R&D and income inequality. The model predicts that improving IPRs will lead not only to higher growth, but also to greater inequality. Jayadev and Bowles (2006) support this conclusion with their own empirical evidence of strengthening property rights and ensuing increases in inequality.

Inequality aside, Kwan and Lai (2003) develop a theory of endogenous growth with IPR and, similarly to others, determine an optimal level of IPRs. They conclude that stronger IPRs can lead to increases in consumption. The empirical effects of strengthening IPRs on innovation are studied by Krammer (2009) and Ang (2011). The authors find positive and significant effects of improving IPRs on innovation in transition economies.

The theories of property rights may also help to explain why some countries experience resource curses, while other resource-rich countries turn their natural resource abundance into a welfare blessing. López and Schiff (2013) develop a theory in which PRs have a special role to play in resource-rich economies with weakly defined property rights. They reach the conclusion that, with weakly defined PRs, the economy will quickly reach an overuse of the resource, resulting in a resource curse. Improving property rights, however, also improves the chances of the country to benefit from the natural resource endowment. Farhadi et al. (2015) find empirical evidence for this theory. On a sample of 99 countries, they demonstrate that the resource curse can be turned into a blessing by introducing more economic freedom. In a more detailed argument, Boschini et al. (2013) reveal which elements of economic freedom have the

potential to turn the curse into a blessing so that resource-abundant countries benefit from their natural endowments. They reveal that improving property rights, as measured in the International Country Risk Guide, has the potential to reverse the resource curse and improve welfare.

By setting up a theoretical framework, Chu et al. (2012) demonstrate that property rights can not only lead to improved growth but also mitigate growth volatility. They also compare the model predictions against US data and find that about 10% of growth volatility can be explained by improving (intellectual) property rights. Perhaps the entire set of PRs has a more potent impact on reducing growth volatility. Indeed, weaker PR protection is found to have an overall negative effect on output stability by Barbier (2004). He concludes that weaker PRs contribute to a more frequent incidence of “boom-and-bust” cycles in Latin America.

Therefore, we can conjecture that, similar to other areas of economic freedom, PRs have a nonlinear relationship with welfare. **Trade and monetary stability** also affect welfare in a nonlinear way.

After Friedman and Schwartz (1963) gained mainstream academic and policy attention, sound money has become widely accepted as a prerequisite for growth and output stability, and through growth, as a condition for raising welfare over time. Monetary stability then penetrated policy agendas across the globe. This includes maintaining price stability as the primary role of central banks in contemporary economies, including the Eurozone, the UK, Australia, New Zealand, and more recently, to a major extent, the USA. Among others, Gwartney et al. (2001, p. 183) argue that monetary stability in the early 1980s and later has been at the core of achieving “strong and steady economic growth” in the USA, which provides a natural platform for establishing a policy agenda for the rest of the world. Bordo (2000) also reviews the role of sound money in the economy by supporting the views of Friedman and Schwartz. He finds that strong price stability has a positive impact on the resilience of an economy to deal with financial shocks, which contributes positively to an economy’s welfare.

Contemporary research into the role of sound money has also focused on its impact on other aspects of welfare. Bjørnskov and Foss (2008) provide empirical support for the hypothesis that inflation stability raises entrepreneurship levels, while Feldmann (2007) examines evidence from

87 countries between 1980 and 2003 on its role in reducing unemployment. Both studies conjecture that inflation stability increases welfare.

An additional line of research examines the impact of political and economic freedom on sound money. For example, Aisen and Veiga (2008) cover a sample of 160 countries between 1960 and 1999 to examine the relationship between political instability and central bank independence on price stability. They find that the more politically unstable a country is, and the less independent the central bank is, the more volatile the inflation rates are. As we will later see, sound money is one of the most robust factors in welfare improvement.

Ho and Jorgenson (1994) review the literature on trade liberalization and its effect on the USA. They build a theory to explain the positive association, and then test the significance of the effects of trade reforms in the USA. They find a significantly higher positive effect of trade reforms than previously expected due to previously ignored dynamic effects of trade. Baldwin (1992) also builds a dynamic growth model with trade. He finds that in the medium-term large dynamic welfare gains from trade liberalization due to capital accumulation exist. Willenbockel (1998) extends the conclusions from this model and argues that the medium-term welfare gains are actually preceded by significant losses due to a drop in aggregate investment and income after trade liberalization.

Numerous other empirical studies have scrutinized trade reform propositions. Berggren and Jordahl (2005) establish a positive correlation between trade openness and growth by questioning the previous evidence of surprisingly negative effects provided by Carlsson and Lundstrom (2002). Berggren and Jordahl (2005) find the negative effects to be due to one of the sub-components of the freedom to trade indices. They also add that Carlsson and Lundstrom's negative effect is not robust to adding newer economic freedom data.

Trade is also found to have a positive impact in a number of studies on developing countries, e.g. Rutherford and Tarr (2002) and Jinjara et al. (2013). Rutherford and Tarr (2002) develop a growth theory with trade liberalization. They decidedly support the conclusion that trade liberalization positively affects welfare. Jinjara et al. (2013) identify the exogenous component of trade reforms by the timing of the trade adjustment agreements between recipient countries and the World Bank. Jinjara et al.

(2013, p. 415) claim that “[i]n comparison to a pre-reform period and to the non-recipient group, the recipient countries registered 0.2 percent higher growth of real GDP per capita, 5.0 percent higher import growth, and 2.5 percent higher export growth over a period of three to five years after trade reform.”

Early evidence of those positive effects in a developing country is produced by Krishna and Mitra (1998). They study the 1991 wave of trade liberalization in India and conclude that trade reforms did modestly contribute to an increase in welfare in India. They also document increases in competition in the liberalized industries, as well as increase in productivity growth, which is key to raising income levels over the long term. The evidence by Alessandrini et al. (2011) sides with this argument. They find that the Indian trade liberalization reforms have spurred industry specialization and have also contributed to the growth of India’s medium- and high-tech industries.

Trade liberalization has also contributed to income convergence of post-War Europe. This conclusion is reached on European data by Ben-David (2001) and is preceded by theoretical work by Walz (1998). A positive impact of trade reforms on welfare is also revealed by Naito (2012), who builds a growth theory with trade and endogenously determined trade status. The paper concludes that a reduction in trade costs, even in one trading partner, raises welfare in both trading countries. The author also supports this conclusion with a number of empirical tests.

Further studies on the effects from trade reforms qualify the above theoretical and empirical conclusions. Christiansen et al. (2013, p. 347) contend that “[d]omestic financial reforms and trade reforms are robustly associated with economic growth, but only in middle-income countries. In contrast, there is no evidence of a systematic positive relationship between capital account liberalization and economic growth. [...] Sufficiently developed property rights are a precondition for reaping the benefits of financial and trade reforms”. Ahmed (2013) also agrees that in order to work for growth, economic freedom reforms, including trade and financial liberalization, need to be set up in an environment of well-protected property rights and complemented by high levels of human capital. Human capital is also found by Gibson (2005) to be a crucial lever to place a country on a growth trajectory after trade liberalization.

Apparently, most African countries lack those conditions, because the more recent findings by Menyah et al. (2014) also confirm that financial and trade liberalization reforms did not exert a significant impact on growth in 21 African countries. Yet, in an earlier study of trade reform effects in 12 sub-Saharan economies, Onafowora and Owoye (1998) document a significant positive effect of trade liberalization on growth in most reforming countries.

The mixed evidence on the effects of financial and trade reforms on welfare goes at least as far back as studies by Greenaway et al. (1997) and Diao et al. (1999). Greenaway et al. (1997) study the effect of trade reforms on economic growth in a number of developing countries and conclude that trade reforms after 1985 had a negative impact on growth for that particular set of countries around the wave of trade liberalization in the 1980s. Diao et al. (1999) also argue that the reform may have a negative welfare implications in the long run, whereas the effects in the short run are mostly positive. Even the short-run positive effects are not guaranteed, according to Dijkstra (2000).

Additional, more recent, empirical support for the nonlinear impact of trade liberalization in developing countries is published by Caselli (2013). Their conclusion is also supported by a number of case studies on developing and emerging economies, including Argentina (Bas 2012), Bolivia (Jenkins 1997), Korea in its rapid development stage between 1966 and 1988 (Kim 2000; Pyo 1990), Malawi (Mulaga and Weiss 1996), Sri Lanka (Rahapakse and Arunatilake 1997), Tunisia (Belloumi 2014) and Zimbabwe (Mehlum 2002). In principle, the authors argue, trade reforms should be able to raise firm-level productivity and also capital accumulation. However, the actual effects of the trade reforms would be uncertain. The literature finds three possible explanations. It is either: (i) the imprecise way productivity or other outcome variables are measured or (ii) because the reform is not credible enough in the long term to induce sufficiently high expansion of capital accumulation or (iii) because “liberalisation raises or lowers growth depending upon the initial level of the barrier” to trade (Baldwin and Forslid 1999, p. 797).

Current levels of economic freedom may indeed hold the key to generating positive welfare gains from trade reforms. According to Freund and Bolaky (2008), when a country implements trade reforms, how supportive

the local business environment is for starting a new business matters more for growth than financial conditions. The reason is that when trade opens, there is often a large cross-industry reallocation of resources. However, in different countries, this resource reallocation will ultimately depend on how easy it is to start and close businesses. Therefore, the business regulations, as well as other forms of government intervention (Dinopoulos and Unel 2011), and excessive competition on the input markets (Goo and Park 2007) might play a key role in maximizing the welfare gains of trade reforms.

Trade reforms have a significant impact on increasing inequality as well. The intuition is well developed by Carneiro and Arbache (2003). They build a general equilibrium model of the impact of trade reforms, and find that trade reforms may benefit skilled workers more, especially in export-oriented sectors. Within-country evidence also supports that view. By studying Mexico's regional disparities before and after entering NAFTA, both Chiquiar (2005) and Nicita (2009) find that NAFTA did not contribute to narrowing the gap in regional disparities. Similar to previous research on the country-level (Cragg and Epelbaum 1996; Harrison and Hanson 1999), regions within Mexico which benefited most from the trade reform were those initially endowed with sufficient levels of human and physical capital, including adequate infrastructure. Iacovone (2012) supports this view with firm-level data. He concludes that "more advanced firms benefited disproportionately more from the liberalization" (p. 474).

Other studies on the effect of trade reforms on income inequality review the experience of Chile (Bussolo et al. 2002) and Brazil (Castilho et al. 2012). Bussolo et al. (2002) reveal that one of the channels through which trade reform affects inequality is the degree of local labor market regulations, while Castilho et al. (2012) confirm earlier studies for Mexico which document increasing regional income disparities after the trade reform. Gelan (2002) expands this view with a calibration exercise for Ethiopia. The author also notices that trade effects on growth will ultimately depend on the local product and labor market regulations. With more flexible underlying regulations, the country will experience a positive impact of trade liberalization. However, with rigid labor market conditions, a "trade reform adversely affects overall economic growth" (p. 707). Acharya (2011) also studies the effects of trade reform on

inequality in Nepal, and Naranpanawa and Arora (2014) do the same for India. Both studies find that trade reforms benefit the rich more than the poor, thereby exacerbating income inequality in developing countries which undertake trade reforms. Helpman (2016) provides recent evidence on the relationship and broadly confirms that trade has contributed to rising inequality across countries but perhaps not so strongly within countries, as the above case studies suggest.

The effect of trade on income inequality may be positive but also only short-lived, according to Harris and Robertson (2013). They build a theory of open economy growth with trade reform. They do acknowledge the negative effect of the reform on income inequality, but also call for a dynamic viewpoint when assessing the effects. In the long run, the authors argue, significant capital and skill accumulation would prevail over the short-lived negative effects on inequality. To support this dynamic viewpoint, they calibrate the model for China and India. Evidence from Brazil and Mexico also supports the view that the effects of the reforms may actually appear negative due to mismeasurement of the dependent variables (de Carvalho Filho and Chamon 2012).

Other trade models are in disagreement with the conclusions of Harris and Robertson (2013) and de Carvalho Filho and Chamon (2012). A recent work by Auer (2015) builds a model of heterogeneous agents who invest in certain types of skills after trade reforms. Their results demonstrate that “while the static gains from trade may lead to convergence, the dynamic gains from trade occur to initially rich countries, thus leading to cross-country divergence of income and welfare” (p. 107). Later in this book, additional evidence is produced which sides with the hypotheses that trade liberalization increases income per capita but at the same time raises income inequality.

We can safely conclude that no single economic freedom so far has exerted a uniform effect on welfare. This is valid not only for growth and inequality but also for other aspects of welfare, e.g. subjective well-being and the human development index. Gehring (2013) studies the effect of economic freedom in general on subjective well-being in a panel of 86 countries between 1990 and 2005. The author finds a positive effect on subjective well-being, especially from strengthening property rights, improving the index of sound money, and deregulation. However,

country-fixed effects moderate the effects, which means that, other than reforms, unobserved country characteristics may be even more important in explaining not only objective welfare but also subjective well-being. Indeed, the author elaborates that “societies that are more tolerant and have a positive attitude toward the market economy profit the most” from deepening market-oriented reforms (p. 74). Graafland and Compen (2015) extend this evidence on a sample of 120 countries. They find that various aspects of economic freedom affect life satisfaction differently. Specifically, they conclude that “life satisfaction is positively related to the quality of the legal system and negatively related to small government size” (p. 789).

Davies (2009) studies how the size of government can affect another measure of welfare: the Human Development Index (HDI). It turns out the size of government does not play a linear role for the HDI either. The author also discusses the optimal size of government with respect to the HDI and argues that it may be country-specific. Designing country-specific and time-specific policies could also be key to a growth-enhancing policy agenda in virtually all reform areas, according to Huynh and Jacho-Chávez (2009). Using nonparametric estimation methods, they also find that the relationships between economic freedom reforms and growth are highly nonlinear. This is valid also for **economic regulation**.

On the one hand, deregulation reduces the rents that regulation creates for workers, incumbent producers, and service providers. This view has gained widespread popularity among academics and policy makers alike since the seminal works by Stigler (1971), Posner (1974) and Peltzman (1976) contributed to the understanding of the political economy of regulation. On the other hand, deregulation allows newly created competition on the product, labor, and capital markets to determine the winner of those rent transfers. Thus, by spurring productivity and efficiency gains (Winston 1993), economic deregulation ultimately contributes to an overall increase in economic growth. Additional growth is achieved primarily through increased employment and real wages (Blanchard and Giavazzi 2003), which affect both production and consumption, and through increased investment (Alesina et al. 2005).

However, a more recent take on the efficiency gains from deregulation in the developing world provides a word of caution. The key contention

in this newer line of literature is that deregulation influences different economies differently, depending on their position on the technology ladder and on the quality of their institutions. For example, Açemoglu et al. (2006) claim that certain restrictions on competition may benefit technologically less-developed countries, while Estache and Wren-Lewis (2009) find that the optimal regulatory policies in developed and developing countries are different because of differences in the overall institutional quality of those countries.

In addition, Aghion et al. (2007) use industry-level data to demonstrate that within each economy, industries closer to the technology frontier will be affected more by deregulation. They will innovate more than the backward industries in order to prevent entry by new firms. As a result, countries closer to the technology frontier benefit more from deregulation.

The alleged benefits of economic deregulation in many industries have prompted more focused debates on the growth effects of specific types of reforms, such as capital, labor, and product-market deregulation. All of these debates are, and perhaps will always be, inconclusive about the ultimate effects of deregulation on welfare. The results in this book confirm that effects of deregulation on welfare are not always significant, and although deregulation did raise income per capita, it also raised income inequality.

Perhaps the best summary of how policy makers design reforms and how reforms affect growth is given by Rodrik (2005, p. 967): “[P]rotection of property rights, market-based competition, appropriate incentives, sound money, and so on—do not map into unique policy packages. Reformers have substantial room for creatively packaging these principles into institutional designs that are sensitive to local opportunities and constraints. Successful countries are those that have used this room wisely.”

In what follows, I review the patterns of large-scale economic freedom reforms since 1970, with an emphasis on how they differ before and after the onset of the Great Recession. Then, I provide evidence on the welfare implications of those reforms. The existing literature sets the stage for those results very well: They will still be far from conclusive. Trade reforms and deregulation will raise income per capita, but will also swell income inequality. Protection of property rights and monetary policy stability will also produce more income per capita but, unlike trade and deregulation

reforms, will shrink income inequality. The least eventful relationship is between the size of government and welfare. In most of the estimations, it will be statistically insignificant.

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