The rise of a global middle class

Global societal trends to 2030: Thematic report 6

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Abbreviations

BRIC Brazil, Russia, India, China

GDP gross domestic product

OECD Organization for Economic Cooperation and Development

PPP purchasing power parity
This Research Report forms part of our series on global societal trends and their impact on the EU in 2030. This analysis is embedded within the framework of the European Strategy and Policy Analysis System (ESPAS) set up to develop a lasting framework to assess global trends and to develop policy responses across EU institutions over the next institutional cycle (2014–2019). The first phase of the project assessed the long-term, international, domestic, economic and political trends facing the European Union over the next two decades; the second phase of the project split trends into three streams, namely the economy, governance and power, and society. RAND Europe’s assessment of likely global societal trends constituted ‘Trend Report 2 – Society’ for this second phase.

This report presents the evidence base, uncertainties and potential trajectories surrounding trends in one of the six major themes that form part of Trend Report 2 – Society: the rise of the global ‘middle class’. Other themes studied as part of this series include the spread of information and knowledge through technology, the new media and education, the empowerment of individuals, the changing demographic profile of the world’s population, the role of migration and mobility, and transformations in the world of work and the labour market. Overall findings from all reports can be found in the Synthesis Report published by RAND Europe, while evidence on the other themes may be found in the research reports published as part of this series.

This work is based on desk research in the form of a non-systematic review of the academic and grey literature on the major trends for this theme. It includes additional information for each of the themes studied, which was harnessed through a Delphi with international participants, as well as through a series of semi-structured interviews with experts from academia and think tanks, policymakers and leading thinkers from the private or voluntary sector further exploring the findings from the Delphi exercise and desk research. Acknowledgements, and a full list of contributors, can be found in the Synthesis Report.

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Introduction

1.1. The context for this study and the European Strategy and Policy Analysis System effort

Over recent years, the European Union has experienced a number of challenges. Facing these issues has required much effort from European policymakers. These reflect the unstable and fast-changing global environment in which the Union is navigating. In the long term, this may challenge the Union’s economic and political influence, and perhaps its ideals and values.

In this new context, expanding the Union’s capacity to anticipate future challenges and outcomes and to coordinate responses across institutions will be crucial. The objective of this study was to help the European Union to prepare for a future strategic landscape that will be more competitive and perhaps less cooperative than before, and certainly more uncertain than a superficial reading of opinion pieces and forward-looking reports might suggest.

The European Strategy and Policy Analysis System (ESPAS) project emerged in 2010 when the European Commission sought to investigate the global trends that will prevail in 2030 and to determine the challenges that European policymakers will be faced with in the coming decades. Its purpose is embedded within a wider context of building a permanent EU forecasting capacity, relying on the collaboration of various EU institutions and actors in the individual Member States, and it also aims to set up a continuous framework to assess global trends and to develop policy responses across the EU institutional framework.

The initial effort, carried out by the EU Institute for Security Studies (EUISS 2012), aimed at assessing ‘the long-term, international and domestic, political and economic environment facing the European Union over the next 20 years’. The report acted as a pilot project setting the scene for further investigation and evaluation of global trends in 2030 in the field of (i) international relations and governance, (ii) society, and (iii) macroeconomic trends.

In 2012, the Bureau of European Policy Advisers (BEPA) commissioned RAND Europe to investigate further the theme of societal changes by drawing from the experience of the pilot project, by analysing key global trends in this field and by drawing their implications for the Union. The task force at BEPA identified six main thematic areas which were to be refined, documented and analysed, namely:

1. The rise of a global ‘middle class’
2. The role of new technologies, new media and increased access to education
3. The empowerment of individuals
4. The changing demography of a globalised world and its impact on different societies
5. The role of mobility and migrations and their impact on identities
6. Old and new labour – and work.

Each of the research reports published as part of this series revolves around one of the six themes. This report focuses on education, technology and connectedness. The overall findings from the analysis may be viewed in the Synthesis Report (Hoorens et al., 2013). The research team has sought to cluster the trends identified above into five major areas in the Synthesis Report. In addition, the Synthesis Report introduces a number of cross-cutting issues that may interact with each of these six themes to influence the long-term strategic landscape and the policy challenges that the European continent may face in the future. In doing so, it relies extensively on strategic and long-term analysis, an approach which may help policymakers grasp the contours of the future and understand how global trends are likely to interact, converge and influence the future landscape.

1.2. The methods used for this Research Report designed to set out the evidence base for major trends

This Research Report presents the reader with findings on the rise of a global middle class, as well as on their impact on the EU landscape, including potential policy challenges for the next 20 years.

Several reports – most of which are referenced in this analysis – have attempted to describe, assess and determine which trends are likely to shape the international strategic landscape or the landscape of a specific region, the EUISS report and the regular efforts of the National Intelligence Council being perhaps among the most notable examples in this context. The objective of the research team as a result is not to replicate these existing efforts, but rather to bring the existing uncertainty surrounding these trends to policymakers’ attention.

The findings analysed in this report are based on two phases of research, namely a non-systematic review of the literature available on each of the major trends listed under the six themes identified by ESPAS for the Society Trend Report, and analysis of the quantitative data available. Our approach is designed to identify the consensus as well as the disagreement on a given trend within a specific theme, and therefore to describe this trend, relying on previous analysis and literature. It has allowed the research team to identify the drivers behind the trends and the conditions and assumptions under which they will materialise. The team has sought to review and discuss the evidence for these assumptions and conditions and the level of uncertainty surrounding them. When appropriate, and relying on the assessment of this uncertainty, the researchers have been able to generate alternative narratives for specific trends, which stand in contrast to the consensus.

The second phase of the research (expert consultation) harnessed the knowledge of leading experts worldwide for each of the themes studied through an approach based on the Delphi method. This effort was followed by a series of interviews with leading academics, policymakers and thinkers from the private or voluntary sector to build on findings from the Delphi exercise. Information from the expert consultation phase was used to discuss and to uncover further the surrounding uncertainty for each of the global trends derived from the literature review.
This approach is not, of course, without limitations. The report considers trends one by one and therefore in isolation from all others when in fact they are likely to interact with each other. We try to alleviate this issue by making clear the assumptions of the literature we review.

By emphasising uncertainty and by attempting to raise policymakers’ awareness of alternative narratives and paths, we hope to contribute to the debate on global trends that will prevail in 2030, and to facilitate the goals of greater flexibility and resilience. While this approach contrasts with previous, widely publicised strategic analysis reports, it also looks to complement these analyses.
Chapter 1. Decreasing inequality between countries and the associated rise of the new global middle class

Accelerating economic growth in specific countries in Asia, Latin America and Africa has led to decreasing between-country inequality, structural change and falling absolute poverty rates, helping billions of people out of extreme poverty over the last decade. The notion is that this trend, commonly referred to as the rise of the new global middle class, has important consequences for global consumption and investment patterns and will act as a crucial driver of further economic, social and political development in the developing world.

1.1. Defining the global middle class

Any depiction of trends that concern a new global middle class must begin by acknowledging the contested nature of the term. Though it is not within the scope of this paper to add to this debate, it is important to note the methodological challenges of forming valid global estimates for a concept that carries different associations, and implies different standards of living, across regions. To illustrate these tensions, the middle class in developing countries has been defined as people who live on between $2 and $10 a day (Banerjee & Duflo 2008), effectively assigning those who have escaped the recognised poverty line of $2 a day to middle-class status. Birdsall (2010) defines the middle class in the developing world as people living on the equivalent of $10 a day or above, and at or below the 95th percentile of the income distribution in their own country. This measure has its strengths, yet it leaves India without any middle class at all. Relative measures are more straightforward but lack transferability across regions – to estimate the size of the African middle class, the African Development Bank (2011) included individuals or households falling between the 20th and 80th percentile of the consumption distribution, or between 0.75 and 1.25 times median per capita income. Attempts to arrive at more globally comparable income standards, though grounded in an internal logic, inevitably have an arbitrary feel. For example, Milanovic & Yitzhaki (2002) define the middle class as those living between the mean incomes of Brazil and Italy – between about $12 and $50 a day in 2000 purchasing power parity (PPP) terms.

A distinction may also be made between the ‘new’ global middle class, comprising predominantly recent additions to the middle classes in emerging economies, and the established (or ‘secure’) middle classes, resident for the most part in the developed world. Though a discussion of the traits and prospects of a global middle class demands some degree of conflation, there are vital differences in the characteristics of
the two groups, including current and future trends relating to their size, the extent of their wealth and their role within wider society.

The term ‘new global middle class’ then is conceptually complex, and cannot be used to refer to a homogenised group. Its exact meaning is bound up in the focus of the individual study. In view of this acknowledged complexity, it is significant that all studies point to an increase in the size of the new middle class, irrespective of the definition employed. The literature places Asia firmly at the centre of this trend; defined as individuals on $2–20 per day, its middle class has grown dramatically relative to those of other regions in the last two decades, more than doubling to 56% by 2008 (Asian Development Bank 2010), as seen in Figure A.1.1. China and Vietnam have far exceeded the progress made by many other countries, increasing their middle class by 60% during this period (Chun 2010). By Ravallion’s (2009) definition of the middle class (living on above $2 but below $13), 15% of the Chinese population belonged to the middle class in 1990; by 2005 the proportion had risen to 62%. Though not as large as for China, absolutely or proportionately, India saw an extra 117 million people join this middle-income group. Asia as a whole accounts for 81% of the expansion in the number living between $2 and $13 per day (Ravallion 2009), though it must be emphasised that it began from a far lower base point than some other regions. Nevertheless, results from the Delphi exercise conducted as part of this study cast doubt on the relative importance of Asia as the new centre of gravity in the future. Substantial middle-class growth has also occurred in Africa, increasing to 34.3% of the population in 2011 (or nearly 326 million people), up from about 115 million or 26.2% in 1980 (African Development Bank 2011).
Figure A.1.1: Comparative data on the increase in the percentage of population in ‘middle-income group’ ($2–20 per person per day) by region, 1990–2008

In a work cited prominently by other trend reports, Kharas (2010) defines the global middle class as made up of those households with daily expenditure between $10 and $100 per person in 2005 PPP terms, a definition employed specifically to explore the consumption power of the middle class. By Kharas’s analysis the prevailing trend is set to continue, with the size of the global middle class projected to increase from 1.8 billion people to 4.9 billion by 2030, 85% of this growth stemming from Asia (see Figure A.1.2). Correspondingly, Asia’s share of the global middle class will increase to nearly 70%. Delphi results confirm a general trend towards significant middle-class growth, with the majority of experts rating the likelihood of its exceeding 4 billion in 2030 to be 50–70% in the third round. Wilson & Dragusanu (2008) estimate that by 2030 roughly 50% of the world population will fall into the $6,000–30,000 bracket, up from around 29% currently. They share the view that Asia will rapidly become the dominant contributor to this pool, with 70% of China’s population holding middle-class status by 2020. This increase will see the share of Europe and North America in the global middle class fall significantly over the coming decades, with evidence for a declining middle class in these regions, notably in the United States, the United Kingdom and Sweden (Pressman 2007). Expert interviews equally highlighted the opposite developments of the middle class between high- and middle-income countries.

1 Unless otherwise stated, all results of the Delphi exercise cited in this report are derived from round 3 of the Delphi.
Figure A.1.2: Asia’s role in global middle-class growth: global share of the middle class by region, 2009–2030

Source: Kharas (2010)
The expansion of the new global middle class is considered to be of great importance economically because of its perceived relationship to demand. Sometimes referred to in the literature as the ‘consuming class’, many of the new middle class will form part of a wider trend of urbanisation, residing in a large pool of emerging cities that are forecast to deliver half of global gross domestic product (GDP) growth (Dobbs 2012a). As incomes increase, spending patterns for the rising middle class will evolve, fuelling various levels of growth across consumption categories (Farrell, Gersch and Stephenson, 2006). Interviewees equally characterised the newly emerging middle classes as ‘consumers of durable goods’, thereby contributing to the creation of domestic capital. A stronger middle class will increase the demand for advanced goods and services, expanding the markets for internationally traded products – especially cars and consumer durables – along with the accumulation of assets (Dadush & Ali 2010; Asian Development Bank 2010). In reflection of its increasing strength, demand from the middle classes has been projected to grow from $21 trillion to $56 trillion by 2030 (Kharas 2010). A substantial number of Delphi experts (45%) also agree on the high likelihood (70%) that the absolute spending power of the global middle class will double by 2030. An increase in consumer spending led by the middle classes is already underway in Africa, reaching an estimated $680 billion in annual expenditure in 2008 – or nearly a quarter of Africa’s GDP, based on 2008 PPP – representing significant growth compared to more marginal increases in other regional economies (African Development Bank 2011). Again Asia is at the forefront of the trend; a dominant middle class is predicted to comprise the majority of purchasing power globally in the near future (Chun 2010). In China alone, there could be over 670 million middle-class consumers by 2021, compared with perhaps only 150 million today (Kharas & Gertz 2010). Yet the extent to which consumption patterns will be influenced by ageing in China and in other countries remains uncertain. Retired individuals are said to spend less on fast-moving consumer goods and more on healthcare, and their patterns depend to some extent on how the pension system is arranged (Du & Wang 2011). These factors contribute to the claim that overall inequality across countries is decreasing. Although sometimes debated, this notion has been supported by data on GINI coefficients (Sala-i-Martin 2006).

1.2. Economic growth and region-specific drivers of middle-class growth

The growth of the middle classes in emerging economies is seen as a direct corollary of economic growth, which has been documented as having removed large numbers of people from poverty. In Latin America, for example, economic growth has been found to be the most powerful force in driving the size of the middle class, of an order of magnitude larger than redistribution (Cárdenas, Kharas and Henao, 2011). A strong interrelationship has been reported between the pace at which a country grows and the size and share of the income held by the middle class (Easterly 2001). The high growth rates of China and India in particular have had an important role in producing the middle-income bulge in the developing world as a whole (Ravallion 2009). For instance, the Organization for Economic Cooperation and Development (OECD) models predict that China and India may experience a seven-fold increase in income per capita by the year 2060. For this to materialise, China’s income level would have to be 25% above the United States’ level in 2011 (OECD 2013). China’s meteoric rise as an exporter has contributed to an increase in
the relative weight of developing countries in world trade in the last ten years (Dadush & Ali 2010). Developing countries are increasing their presence in manufactured goods exports and decreasing their reliance on trading with developed countries. Technological innovation has been a focal mechanism for these changes, together with increased financial integration and falling communication and transport costs. This transformation in world trade is projected to continue (Dadush & Ali 2010), bringing with it a continuation of the economic growth that has seen China and India – India currently to a rather smaller extent – converge towards the world’s leading economies (see Figure A.1.1), thus inducing the projected increase in the size of the global middle class.

Figure A.1.1: Share of world GDP (PPP) for selected economies, 1996–2012

Other drivers of middle-class growth may be more region specific. Africa’s new middle class is strongest in countries that have a robust and growing private sector as many middle-class individuals tend to be local entrepreneurs (a trait commonly associated with the middle class, but not always evident). Further factors cited as driving the creation and sustenance of a new middle class include the provision of stable and secure jobs, the provision of targeted benefits and the uptake of higher education (African Development Bank 2011). There is no apparent consensus on the factors driving the decline of the established middle class in advanced economies, though country-specific policies may have a significant bearing. The trend has been attributed variously to demographic factors, structural or microeconomic factors such as the loss of middle-class manufacturing jobs owing to technological innovations or outsourcing, macroeconomic factors such as unemployment resulting from the business cycle, changes in public policy, and the scarring effect of economic crises (Pressman, 2007; Chauvel, 2010; Goos, Manning and Salomons (2010)).

Though the flourishing of the middle class in emerging economies has been stated to be foremost an outcome of economic growth, rather than an input to growth (Birdsall 2010), together the two are expected to form a virtuous circle. Owing to the demand created by the new middle classes, their rise has
been linked to a future shift in the economic centre of gravity to Asia, which accounts today for 34% of
global activity but by 2030 could account for over 50% of global output (Kharas 2010). However,
participants in the Delphi exercise were divided about the likelihood that Asia as a whole will account for
50% of global economic output by 2030. The effect of this shift of global economic mass towards Asia is
predicted to become self-reinforcing, with India and China benefiting from their increased proximity to
the world’s economic centre of gravity. Nevertheless, the Human Development Report 2010 points
towards no convergence in income between high- and low- to middle-income economies.

1.3. Uncertainties and potential alternative scenarios

There is consensus that poorer countries will continue to grow faster than richer ones. In this sense, is
sometimes argued that the world as a whole may become more equal (Economist 2012). However, the
models that project massive increases in the number of the new global middle class are admitted to be
deterministic and devoid of policy context (Kharas 2010). They fail to account for a number of plausible
scenarios, including protectionist policies, geopolitical strife, climate change and the recurrence of
financial crises. Indeed, Delphi participants rated climate change to be a fairly significant threat to the
development of middle-income economies within the next 15 years (with 40% of respondents ranking it
5th out of a possible 7 factors of influence), along with global and regional conflict and economic crises
(with 65% of respondents ranking it 5th out of 7). Interviewees pointed, for instance, to the ‘unexpected
effects of the economic crisis’ in Europe, which have led to declining average incomes and increasing
inequalities in southern Europe, in contrast with initial projections that it would affect only higher-
income classes.

As such, the projections are optimistic and represent scenarios as opposed to forecasts (Dadush & Ali
2010). Economies may not be able to grow as rapidly and unhampered as is often predicted. For example,
a number of Asian countries (including India and China) have large sectors of the population currently
just below the middle-class threshold. About 60% of Africa’s middle class, approximately 180 million
people, remain barely out of the poor category (African Development Bank 2011). They are in a
vulnerable position and face the constant possibility of dropping back into poverty, as do large sections of
the population of Asia, where the bulk of the middle class are living on $2–4 per day (Chun 2010). One
Delphi expert similarly highlighted that the position of newly emerging middle-class members slightly
above the poverty line may be insecure, depending on the strength of safety nets in place. If we adopt
Birdsall’s definition of the middle class, which sets $10 a day as the threshold and includes only people
with the minimum income as economically secure in a global context, a different picture emerges. Using
this definition, the ‘indispensable’ middle class in most developing countries is small in absolute terms.
Among the countries studied, only Russia, Mexico and Brazil have more than 25 million people in the
middle class; urban China has fewer than 20 million. Brazil and Mexico are revealed to have larger middle
classes than China, and Russia is the largest among all the countries analysed. In only a few developing
countries does the middle-class share exceed that of the rich (Birdsall 2010). It would be a mistake to
dismiss this definition for its apparent exclusivity – even $10 a day might be seen as a low threshold
compared with the national poverty lines of member countries of the OECD (Ravallion 2009).
Birdsall’s study highlights the importance of differentiating between the new middle class and the secure middle class, not only within the developed and the developing world but within emerging economies themselves – future projections frequently conflate the two. Fully one sixth of people in the developing world now live on between $2 and $3 per day (Ravallion 2009). The literature tends to assume that these sectors will stabilise and move into the secure middle class, but that is contingent both on the absence of severe exogenous shocks and on region-specific policy challenges being acknowledged and confronted. A scenario accounting for the materialisation of risks to growth would see a significant impact on the strengthening of the middle classes in countries such as India, as depicted in Figure A.1.1.

**Figure A.1.1: India’s projected growth (in percentages) in global middle and rich class**

![Graph showing projected growth in India's middle and rich class](image)

Source: Dadush & Ali (2010)

A significant threat to the realisation of vast growth in the global middle class is the concept of the middle-income trap. This is an observed phenomenon whereby countries that have grown to middle-income levels subsequently stagnate and fail to attain advanced-country status, owing partly to growth slowdowns caused by the rising costs of wages and subsequent declines in competitiveness (Aiyar et al. 2013). In short, the middle-income trap arises when countries reach middle levels of income; ‘economic growth and structural upgrading become more arduous’. Experts note that while some countries (e.g. in Asia) manage to surpass middle-income status in a short amount of time – for instance, through diversification and a move towards higher value-added products, others (e.g. in Latin America) stagnate in this zone for longer (OECD 2012). If reforms are not implemented, these countries may reach a point where they are unable to compete with low-income, low-wage economies in manufactured exports and unable to compete with advanced economies in high-skill innovations (Kharas & Kohli 2011). In order to exit this trap, two main components have been identified in the literature, namely policies conducive to innovation and high investment levels in new technologies (Griffith 2011). South Africa and, until
recently, Brazil have been cited as prominent examples of a phenomenon that is reflected in many middle-income economies around the world (Kohli & Mukherjee 2011).

The possibility of the middle-income trap presents itself to a number of emerging economies. While the development of the Brazilian middle class is encouraging, the country has yet to demonstrate a track record of sustained fast growth that assures its sustained convergence with advanced economies (Kharas & Kohli 2011). Similarly, Asia’s ability to attain what has been termed the ‘Asian Century’ will be predicated on the quality of governance and the institutional capacity of Asian countries to manage risks, including climate change and sub-regional disparities. The Asian Development Bank (2010) pointed towards the conceptually and empirically strong, long-term positive association between governance and institutional quality on the one hand, and economic growth and income levels on the other. Not all signs are encouraging, with a current trend in some Asian countries towards deteriorating institutional capacity and rising corruption (Kohli & Mukherjee 2011).

Delphi experts judge the risk of one of Brazil, Russia, India and China (the BRICs) falling into the middle-income trap by 2030 to be more moderate than commonly assumed by the literature; about 40% of respondents rank it at about 60% likelihood. Nevertheless, the risk of the middle-income trap presents itself as a challenge to the commonly assumed unhampered continuous growth of BRIC countries – with a certain degree of uncertainty surrounding that trend.

Among the challenges to be confronted by all economies is the prospect of increasingly finite natural resources, the scarcity of which will only be accelerated by the increase of a consuming middle class. The future battle for resources is likely to become a zero-sum game where more for one economy means less for another (Kohli & Mukherjee 2011). Income growth has indeed been associated with deterioration in such key environmental indicators as carbon dioxide emissions, forest cover, and soil and water quality; with the most disadvantaged bearing the repercussions (Human Development Report 2011). Nevertheless, no clear agreement could be reached between Delphi respondents on the significance of depleting natural resources as a threat to the development of middle-income economies within the next 15 years.

A further, very concrete possibility is the recurrence (or persistence) of global financial crises. A slowdown in economic growth, structural change and investment may lead to a slower rate of progress in reducing poverty. Here the signs are more encouraging for Asia specifically, whose resilience to various shocks, as illustrated by the Centennial Resilience Index, has improved over time. This was exhibited during the economic crisis when it was the first region to recover, and it has since led global growth (Kohli & Mukherjee 2011). However, the trend of a rising new global middle class is largely influenced by China’s emerging economy. Excluding China, the absolute number of people in poverty actually rose over the last decade in the developing world (Kapsos & Bourmpoula 2013). With a decelerating economic growth in China, the trend is likely to slow down as well. The set of challenges above presents sources of uncertainty that will have a bearing upon future levels of economic growth and correspondingly of middle-class growth. This intention here is not to cast the growth of middle classes as solely a dependent variable – dual feedback processes are inherent to each of the factors outlined above. The precise causal flow of these relationships is too complex to elucidate in this report (neither are they well established in the literature), but it is clear that middle-class growth will itself have an impact on the realisation of lower growth
scenarios. For example, the absence of a large or wealthy middle class may be construed not only as a consequence but equally as a driver of the middle-income trap. Focusing on developing robust domestic markets – as opposed to concentrating solely on growth – is an important strategy for negating that scenario. The extent of middle-class growth also has sizable repercussions for environmental issues, presenting the potential for a perfect storm of high emissions, food and water consumption, and demand for natural resources – which would necessitate cooperation between Europe and emerging economies. Delphi respondents rated the impact of middle-class growth on individual carbon footprints in middle-income economies over the next 15 years as fairly significant (5 or 6 on a scale up to 7). About 70% to 80% of experts estimated the significance of global middle-class growth to be a fairly important factor threatening the sustainability of natural resources over the next 15 years.

Despite the significant challenges to be confronted, there appears to be a consensus that the size of the new global middle class will grow and that this will be led by Asia. According to one scenario-based study incorporating diverging projections of GDP growth to 2050, Asia’s middle-class population will increase to around 4 billion even if converging economies fall into the middle-income trap (Kohli, Szyf and Arnold, 2012). Other studies forecast growth of the middle classes to be less pronounced – estimates from the World Bank indicate that the world’s middle class is expected to grow from 430 million in 2000 to 1.15 billion in 2030 (Roy 2012). Interviewees affirmed that current projections of middle-class growth may not be ‘pessimistic enough’.
Although various types of inequality exist – some of which (educational and digital, among others) are studied in this series of reports – these often result in income inequality, which is the focus of this report.

Though inequality of economic output between countries is decreasing in GDP terms, a second parallel trend resonates strongly in the literature: individual inequality \textit{within} countries is rising (Dadush & Dervis 2013; Economist 2012; Fredriksen 2012; OECD 2011a). The phenomenon is particularly pronounced in the United States and Europe and is evidenced in the majority of OECD countries, as shown in Figure A.2.1. Among OECD countries only France, Hungary and Belgium experienced little change in inequality in the period 1985–2008, with Turkey and Greece the two countries to experience a decrease in inequality (OECD 2011a). Interviewees referred to growing inequality in Europe, being more pronounced in Anglo-Saxon countries than in central or northern Europe. However, Europe was generally characterised by the experts interviewed as being more equal and homogeneous than the United States.
Increasing within-country inequality in advanced economies is an established phenomenon in the literature (Dadush & Dervis 2013; Economist 2012; Fredriksen 2012; Morrisson & Murtin 2011; Ortiz and Cummins 2011; OECD 2011a). There is further evidence of the trend among many emerging economies (OECD 2011b; Ortiz & Cummins 2011), though here the pattern is less uniform. Within-country inequality may generate a range of negative outcomes, including potential decline in social cohesion, and has been shown to be correlated with negative health impacts, albeit diminishing (Mackenbach 2002). Interviewees point towards a breakdown of social solidarity through increasing divides between rich and poor, as a result of the dismantling of European welfare states in the aftermath of the financial crisis. Structural policies put into place to counter a recession were highlighted as undermining solidarity. Yet, the public reaction to growing inequality and vulnerability among certain strata of the population is a source of uncertainty and debate among experts. Particularly in developed countries such as the United States, the evidence suggests that public concern about high economic inequality does not necessarily equate with support for redistribution, and may in some cases foster more conservative views on this issue and on the role of the state (Kuziemko & Stancheva 2013; Luttig 2013; Orton & Rowlingson 2007).

Income inequality has increased in most Asian countries (Ali 2007), with India a prominent example of a country that has become more unequal over time, maintaining levels well above those of even the most unequal OECD countries across all observed states (Vanneman & Dubey 2010). Estimates of inequality in China carry a degree of uncertainty. The 50% rise of inequality between the 1970s and the mid-2000s represented the largest and fastest rise of inequality in history (Economist 2012), but this rapid increase has slowed since 2005 and is reported to have recently reversed. The accuracy of documented levels of inequality in China has been questioned, with studies suggesting they may be much higher than statistics.
suggest, owing to underreporting of income by respondents and non-participation by the high-income groups in official household surveys (Wang 2010). Interviewees supported the trend of rising inequality in countries where the lower and middle classes are missing ‘the basic tools they need to grow and expand’ – that is, educational skills and job opportunities.

A majority of Delphi respondents assume the trend of increasing inequality within countries will level off until 2030, though; about 45% of the participants rated the likelihood of increasing GINI coefficients until 2030 at only 10%. No clear agreement could be reached with regard to the likelihood of a higher GINI coefficient in 2030 (compared to currently) as an indicator of rising within-country inequality in China or India. There was also disagreement about the likelihood of decreasing inequality in Brazil. Experts are thus divided about the development of income inequality in the BRICs up to 2030.

The two regions to have experienced falling inequality worldwide in the past decade are Latin America and Sub-Saharan Africa, owing partly to the implementation of redistributive policies in specific countries. Between 2000 and 2010, the GINI coefficient declined in 13 of 17 Latin American countries (Birdsall, Lustig and McLeod, 2011). Brazil and Argentina have made significant progress, though overall levels in both countries remain comparatively high. Interviewees confirmed the fairly rapid emergence of a ‘professional middle class and affluent upper class’, associated with periods of rapid economic growth. Improvements in these regions should be kept in their proper perspective as all emerging economies maintain levels of income inequality significantly higher than the OECD average (OECD 2011b), as shown in Figure A.2.2. Inequality in South Africa and Russia has also increased and remains at high levels.
2.1. Drivers of inequality

About half of the Delphi respondents judged the ability of global trends to influence inequality in a given country to be high (ranking it 6 out of 7). In the literature, the trend of higher within-country inequality is, among others factors, attributed to globalisation and technological innovation (Dollar 2002; Morrisson & Murtin 2011), which benefit the educated and skilled in the rich world and emerging markets alike. Skill-biased advances in technology have clearly played their part, demonstrably so in the United States (Lansing & Markiewicz 2012), by eliminating jobs through automation or upgrading the skill level required to attain or keep those jobs (Dadush & Dervis 2013). There is, however, competing evidence from Europe that country-specific events and policies, such as the decline of labour-market institutions or increased skill supply, may be more important for inequality than common global trends (Harjes 2007). This is supported by developments in the outlying region, Latin America, where in-depth country studies for Argentina, Brazil and Mexico suggest two main local phenomena underlying falling inequality. Firstly, the premium for skilled labour has decreased – a surge in secondary education has heightened the supply of literate well-schooled workers, and years of growth have raised demand for less-skilled labour, such as construction workers, in the formal workplace (Birdsall, Lustig and McLeod, 2011; Economist 2012). Secondly, there is considerable evidence from household surveys that targeted education expenditures and conditional cash transfer programmes have reduced inequality in these countries (Birdsall, Lustig and
McLeod, 2011). Though standards of governance vary considerably in the region, increasing access to education at least at the primary and secondary level – has been viewed as a long-term trend common throughout Latin America. Education spending has become more progressive, with a huge expansion in public secondary education among the poor – Latin American governments now spend a larger share of GDP on education for the poorest 20% of children than does the United States. In Brazil, a real terms increase of 50% in minimum wages since 2003 has also played its part (Economist 2012). Participants in the Delphi exercise noted that the following policy options (ranked in order of preference by the group) have a strong potential to reduce inequality in low- and middle-income countries; the evidence suggests that these options could be taken up, in the order shown:

i. Conditional cash transfers (ranked most effective by 80% of respondents)

ii. Countering corruption and consolidating public finances (according to 60% of respondents)

iii. Promoting job security and reducing the informal economy (according to 60% of respondents).

It is important to note that, in many parts of the world, the increase of within-country inequality does not denote the rich getting richer and the poor getting poorer – rather, the rich are getting richer faster than the poor (Ali 2007). In Europe, rising inequality is driven at a base level by an increasing share of income among the top decile (Fredriksen 2012), as Figure A.2.3 illustrates. Real disposable household incomes increased by an average of 1.7% a year in OECD countries in the two decades prior to the economic crisis, but in a large majority of countries the household incomes of the richest people grew faster than those of the poorer (OECD 2011a).

**Figure A.2.3: Shares of top 1% in total pre-tax incomes in selected OECD countries, 1990-2007 (or closest year)**

![Figure A.2.3: Shares of top 1% in total pre-tax incomes in selected OECD countries, 1990-2007 (or closest year)](image)

Source: OECD (2011a)
Similarly, though rapid economic growth in Asia has raised incomes across societies, the differences in real wages between the bottom and top quintiles of the labour force in urban areas increased significantly over the last two decades. The onset of this development in China is illustrated in A.2.4.

**Figure A.2.4: Rising inequality in China: income share by income decile in China, 1995–2002**

![Graph showing income share by income decile in China, 1995–2002](Source: World Income Inequality Database)

Note: D1 represents the bottom income decile, D10 the top income decile.

### 2.2. Necessary conditions, uncertainties and alternatives

A number of factors are presented in the literature to explain increasing inequality in emerging economies. Across Asia, employment in the informal sector, where productivity levels and wages are low, is either on the rise or persistently high (Ali 2007). This is a significant problem in India, which has yet to build a significant labour-intensive manufacturing industry, owing partly to poor infrastructure (e.g. power supplies) and rigid labour laws. The security of the top quintile in India has been found to be upheld primarily by their access to monthly salaries (Vanneman & Dubey 2010). Parallel to the strength of informal economies, the nature of employment in the formal sector in Asia, which has been historically associated with regular contracts and job security, is changing to be more characteristic of the informal sector. Asia also faces the challenge of uneven growth across subnational locations and across the rural and urban sectors. Gaps in access to education, barriers to employment for specific groups (e.g. rural migrants in China) and the entrenched habit of transferring state assets to insiders, all remain enduring barriers to equality (Economist 2012; OECD 2012d).

In Europe, there is little consensus about the more nuanced causes of high inequality, beyond the increasing income share of the upper decile. Prominent explanations found in the literature include changes in taxation and labour-market institutions, skill-biased technological change, socio-demographic factors and exogenous shocks (Alderson & Doran 2010; Fredriksen 2012). The central role of education
has again been highlighted as essential in countering high levels of inequality, and cited as the single most important factor in reducing wage dispersion among workers and fostering higher employment rates (OECD 2011a). Public cash transfers, as well as income taxes and social security contributions, have historically played a major role in all OECD countries in reducing market-income inequality, but their stabilising effect is said to have declined since the 1990s (OECD 2011a). Delphi respondents confirmed the importance of these policy measures in reducing inequality in high-income countries. When presented with a choice during the Delphi exercise, the experts participating ranked them in terms of effectiveness as follows: social safety nets the most effective policy option (according to 90% of respondents), followed by targeted investments in other public services (according to 90% of respondents) and promoting job security (ranked third by 100% of respondents). Evidence for the role of globalisation in growing inequality in Europe is again inconclusive. Though some studies have found trade integration to have increased inequality in both high-wage and low-wage countries, others suggest that rising imports from developing countries are associated with declining income inequality in advanced countries (OECD 2011a). There is little certainty regarding future levels of inequality, though on current trends the increase is set to continue to 2030 in developing countries (Morrison & Murtin 2011). Interviewees described global income inequality to be high but ‘on the beginning of a declining portion’, and estimated ‘with a fairly large degree of certainty’ that it would continue to decline over the next five years. The literature suggests that global inequality will continue to decrease, so that poverty will increasingly become a matter of within-country inequality (Sumner 2012). This is already the case in Europe, where a Theil decomposition of overall EU inequality reveals that inequality within countries explains 85% of total inequality, whereas only 15% is explained by inequality between countries (Fredriksen 2012).
Chapter 3. Future uncertainties: the relationship between within-country inequality and global middle-class growth

The trend of rising within-country inequality is pertinent when evaluating the future strength and composition of a global middle class, introducing uncertainty across two dimensions. Firstly, there is the possibility that sustained high inequality will prevent wealth from reaching the middle classes in some emerging economies. We know that incomes can grow substantially in the midst of great inequality, and that a country can hold a very large middle class and high levels of inequality simultaneously. Interviewees highlighted cases where a growing middle class is insufficient to reduce levels of poverty substantially, such as in India, while middle-class expansion in China was able to do so. However, even in those regions with established middle classes such as Europe and the United States, the middle classes have already incurred dwindling returns due to increasing inequality. This is also a possibility elsewhere – a relative loss or absence of change in the incomes of middle classes over time, in favour of top-income groups, has been observed in both emerging and advanced economies (Ortiz & Cummins 2011). There is evidence, for example, that heightening inequality is stifling social mobility and hollowing out the middle class in the Mediterranean world and parts of Asia (Bhaskaran 2012; El Laithy 2012). Further reflecting this relationship, the Asian Development Bank has argued that emerging Asia’s worsening income distribution during the past 20 years resulted in an extra 240 million people remaining in extreme poverty, while growth rates would otherwise have been sufficient to alleviate that status. The second dimension of uncertainty is introduced by the relationship between high within-country inequality and future economic growth, the driver of middle-class growth. About the effect of global middle-class expansion in middle-income economies on economic growth in Europe, Delphi respondents were divided: about 30% of respondents rated the likelihood of a positive effect at 50%, while about 40% of experts judged it to be around 70%. Interviewees confirmed the uncertainty surrounding the impact of the BRIC countries’ growth on Europe: it ‘is not as firm as calculating global inequalities’.

Alongside fiscal imbalances, a survey for the World Economic Forum at Davos identified inequality as the most pressing problem of the coming decade. It is posited that sustained income inequality slows growth, contributes to financial crises and weakens demand (Economist 2012; Ortiz & Cummins 2011). Delphi results on the uncertainty surrounding the relationship between income inequality and middle-class developments were bimodal: 40% of Delphi respondents judged the effect of high-income inequality on the strength of the middle class, defined in terms of size, purchasing power and political influence, to be fairly well established in the academic and policy community, rating it at 5 out of 7 on the proposed scale.
In contrast, about 30% of respondents rated it to be 2 out of 7, thinking the link to be not very well established in the academic and policy community.

As detailed, emerging economies face particular challenges in guarding against wider inequality. It is significant therefore that inequality has recently fallen in China, albeit from a very high base point. Since around 2005, China has introduced reforms including the generalisation of the minimum subsistence allowance to the countryside; new medical insurance schemes for people with rural registration status and dependants of registered urban employees and students; the introduction of a new pension system for people living in the countryside; and a separate pension system for migrant workers. The new policies have resulted in a marked rise in coverage for the principal forms of social protection (OECD 2012d). Notwithstanding these changes, the country remains at risk of falling into an ‘inequality trap’ if its Hukou system and resulting educational disparities are not reformed (Kharas 2010), and great imbalances between rural and urban populations persist in access to basic services (OECD 2012d). While present to a degree, similar reforms in India have not been so widespread, and the informal sector continues to dominate the economy and perpetuate inequality (Economist 2012).

Though economic growth has been found to be a stronger conduit of equality than redistributive policies (Cárdenas, Kharas and Henao, 2011), it is clear that the extent to which emerging economies are able to make targeted investment in education, counter corruption, provide basic safety nets and foster secure labour will have an impact on future equality. As an Asian Development Bank report (2010) highlights, the role of social protection in closing incomes is vital as it not only extends individual capabilities to take advantage of economic activities, but also helps to improve efficiencies in the labour market. These policies generally target those on or below the lower middle-class threshold and therefore it is likely they will have an impact on the growth of the middle classes. South Korea has demonstrated that inequality is not an inevitable result of high economic growth in the Asian context, but the governments of emerging economies in both Asia and other developing regions will need to be proactive in setting their path. This formative role of government policy in future trends also applies in Europe, where some Member States have experienced both an increase in inequality and a marked decline in the size of the middle class (Fredriksen 2012; Pressman 2007).

The literature suggests that countries are not slaves to global trends when it comes to inequality. Policy choices, regulations and institutions may have a crucial impact. They can shape how globalisation and technological changes affect the distribution of income, and they can also influence income distribution directly (OECD 2011a). Accounting for 40% of the world’s population, China and India will be instrumental in shaping massive global middle-class growth. It will be incumbent on their policymakers to ensure that sustained high inequality does not become an obstacle to realising that potential. This can be confirmed by the Delphi exercise results: a clear majority of experts (95% in round 3) judged the ability of a country’s national policy to influence inequality within a country as fairly high, rating it 5 or 6 on a scale up to 7. In the light of these results, a levelling-off of increasing income inequality in the future may be attributed to policies in place and not necessarily solely to the structural environment encountered.
3.1. Values and the new global middle class: theoretical insights

It is often suggested that global middle-class growth will engender the flourishing of democratic and ‘self-expression’ values. According to a Delphi respondent, it is a well-established trend in sociological and political research that support for democratic reform is strongest among the middle classes. These are characterised by an ability to live a comfortable life, with healthcare, stable housing, discretionary income, access to tertiary education and security in employment and retirement (e.g. Kharas 2010), and the narrative suggests that the middle classes have the time and motivation to catalyse significant transformations in a society (Kohli, Szyf and Arnold, 2012). Interviewees emphasised a potential influence of the middle class on value change: ‘once people are able to focus on more than simply getting by’, aspects of quality of life, environmental concerns and freedom as a public good will move to the forefront of concerns. Middle-class citizens are said to be the most likely to demand free high-quality education, and are widely considered to be the foundation of innovation and domestic demand, helping countries to become more self-sufficient. This association is held to have historical validity – Bhalla (2007) argues that institutional changes such as child labour laws and universal male suffrage first occurred in many countries when their middle classes began to emerge, as happened over two hundred years ago in Europe. In a study incorporating successive waves of the World Values Survey, Inglehart & Welzel (2009) trace the strong linkage between value systems and per capita GDP, arguing that economic development tends to produce roughly predictable changes in a society’s beliefs and values (a movement from ‘materialist’ and survival-oriented values focusing on bread and butter issues’ to ‘postmaterialist’ and self-expression values turned towards more abstract concepts such as freedom of speech), which in turn may drive democratisation. Economic development is conceived as creating a large, articulate middle class of people who are accustomed to thinking for themselves, and who upon reaching critical mass will press for liberal democracy. The study highlights empirical evidence that modernising countries are increasingly democratising, in the light of which the economic changes occurring in China make the emergence of a more democratic political system likely in the future. Thus interviewees pointed towards the ‘hollowing out of the middle class’ as a ‘politically negative phenomenon for the maintenance of democracy’.

3.2. Uncertainty in the evidence on changing values

Though it is intuitive that a relationship exists between middle-class status and values, the manner in which values evolve upon entering the middle class in emerging economies has not been detailed with rigour. In their study entitled ‘What is middle class about the middle classes around the world?’ Banerjee & Duflo (2008) find that the middle classes are defined primarily by their having stable, well-paid jobs. Contrary to the supposition that the middle classes host ‘capitalists in waiting’, they find that being a member of the middle class does not necessarily denote an ‘entrepreneurial spirit’. The key distinction between the middle class and the poor is said to be whom they are working for and on what terms. For example, the middle classes are much more likely to hold salaried jobs that come with health or retirement benefits. Pew Research Center (2009) examined the values of middle classes in 13 middle-income countries around the world, with significant though not conclusive results. Compared with poorer people, members of the middle classes were found to assign more importance to democratic institutions and
individual liberties, consider religion less central to their lives, hold more liberal social values and express more concern about the environment. Notable differences in the values of middle and lower classes were particularly common in Chile, Russia, Bulgaria and South Africa. However, considerably fewer differences were seen in four of the five poorest countries in the analysis: Brazil, India, Egypt and Ukraine.

The Pew survey highlights the difficulties of extrapolating future ‘global’ trends in the values of the new middle class. In 2030, the ‘new’ middle class will still be poorer and less educated than the middle classes in Europe and North America, and the extent to which they will come to espouse democratic or self-expression values is likely to differ significantly between countries. Where the middle class may advocate political reform in some cases, it is also possible they may come to embody conservative values that seek to preserve their own position. China and India have experienced rapid economic growth under very different political regimes, and there is little indication that the values of these two middle classes are on a route to convergence. Some experts suggest that on certain specific issues, growing polarisation of values may be slowly developing. For instance, some newer middle classes (e.g. in Latin America) appear to support multilateral approaches to dealing with global issues, and support for peaceful international cooperation was a hallmark of older middle classes in Europe and beyond. However, the erosion of those middle classes appears to be taking place hand in hand with growing scepticism about Europe and the rise of nationalistic and isolationist political movements from Greece to the UK. This may pose a future challenge to the EU in terms of engaging with countries with differing levels of commitment to tackling global issues.

There is a further distinction to be made between stated values and behaviours. In the area of the environment, for example, it is not the values of the middle classes that will have the most impact but the behaviours they exhibit, a point on which guiding evidence is again lacking. Taking consumer behaviour more broadly, a number of studies indicate that the relationship between preferences and income is far from straightforward (de Mooij 2011; Peattie 2010; van Ittersum 2010).

A further unknown is the relationship between inequality and values. A recent study concluded that inequality of gross incomes lacks any empirical association with value change (Corneo 2011). Inequality has, though, been reported to contribute to political unrest and radicalisation (UK Ministry of Defence 2010) and to lead to fractures between elements of society. On the other hand, experts from the Delphi exercise pointed to ‘little or no relation between inequality and social unrest’, depending mostly on whether ‘latent feelings of dissatisfaction can be mobilised into manifest protest’. According to a Delphi participant, social unrest is unlikely to arise as result of increasing inequality, but rather if ‘middle classes experience a continuous inability to fulfil aspirations’.

It is plausible that the restive desire for change engendered in unequal societies and the democratic values projected by the middle class may reinforce each other, leading to the furtherance of a stable, progressive agenda in some countries. The effects of inequality are far from certain, though. Depending on the government response, it may provoke unanswered protest and continued instability. The Delphi exercise pointed to a relatively high likelihood of sustained high levels of inequality leading to higher incidence of political protest in EU Member States over the next 15 years, although experts did not provide an estimate of the likelihood of this phenomenon. In the light of the economic crisis, Member States should also be awake to this possibility. Interviewees commented on a rise of populist movements at a time when
social democratic regimes are being undermined and there is a lack of political leadership in certain European countries.

The degree of satisfaction or happiness of the new middle class creates another driver of uncertainty. Should the middle class follow the debated ‘Easterlin paradox’ (Easterlin 2004), by which life satisfaction tends to correlate negatively with GDP growth, the impact on political stability or even consumption patterns would be difficult to forecast.

The evidence does not oppose the view that the rise of the global middle class will have a positive impact in promoting democratic values and political reform in emerging economies. Neither, though, is there evidence to carry this assertion forward with confidence, with much of the discourse on the question still theoretical in nature. Interviewees emphasised that the link between democratic and middle-class developments is ‘a big assumption’. Similarly, expert opinions from the Delphi exercise on the likelihood that middle-class growth in low- and middle-income economies would lead to increased public support for democratically oriented political reform were divided and inconclusive.

There is clearly less certainty about what members of the global middle class will look like – how much they will consume, what they will believe and how they will act – than there is about the fact that they will be greater in number.
<table>
<thead>
<tr>
<th>Trend</th>
<th>Drivers</th>
<th>Indicators</th>
<th>Evidence-base (0/+/++/+++)</th>
<th>Time horizon</th>
<th>Outcomes for the EU</th>
</tr>
</thead>
<tbody>
<tr>
<td>Decreasing inequality between countries (including falling poverty rates)</td>
<td>Accelerating economic growth in many low- and middle-income economies Exogenous shocks such as climate, natural disasters, international conflict</td>
<td>GDP per capita, GINI index, poverty rates</td>
<td>+++</td>
<td>Short term (5–10 years)</td>
<td>Governance standards in some low and middle-income countries, international trade and global competitiveness of EU firms EU; shifting focus of EU development objectives and policy</td>
</tr>
<tr>
<td>‘Rise of a new global middle class’</td>
<td>Growth of middle class in Asia as result of economic growth, urbanisation, uptake of higher education, provision of stable and secure jobs</td>
<td>Mean income levels to live on per day, consumption power of the middle class</td>
<td>++</td>
<td>Short and medium term up to 2030</td>
<td>Middle-income trap in a number of emerging economies, global resource scarcity and risks to food and energy security, unstable middle class risking fall back into poverty, new middle class demands increasingly met locally (limiting export opportunities of the EU)</td>
</tr>
<tr>
<td>Decline of the ‘established’ middle class in high-income economies</td>
<td>Socio-demographics, technological innovations, decline of manufacturing sector, economic crisis</td>
<td>Mean disposable income levels per day, consumption power of the middle class</td>
<td>+++</td>
<td>Short and medium term up to 2030</td>
<td>Recurrence of global financial crises / consolidation of public finances, job insecurity, quality of democracy and pressure on social safety nets</td>
</tr>
<tr>
<td>Increasing individual inequality within countries</td>
<td>Globalisation, technological innovation, leading to skill-biased advantages in the job market; income inequalities – differences in real wages, informal economy</td>
<td>GINI index, poverty rates, income levels (increasing share of income among the top decile)</td>
<td>++</td>
<td>Short and medium term (level off in long term)</td>
<td>Potential decline in social cohesion, barriers to social integration, negative health impacts, sustainability of the welfare state</td>
</tr>
<tr>
<td>Value change through middle-class growth</td>
<td>Economic development / less need to worry about sustainable livelihoods, higher education levels</td>
<td>Democratic and ‘self-expression’ values (World Value Survey), individual liberties</td>
<td>+</td>
<td>Short and medium term</td>
<td>Risk of social unrest and protest, corruption, High democratic reform</td>
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Cate, Fred, and Newton Minow, “Government Data Mining,” 2008.


———, *Active age ing, 2012a.*


European Commission (March 2013). "EU employment and Social situation." Quarterly Review.


———, "Share of women among tertiary students Total - science, mathematics and computing engineering, manufacture and construction (%), code tps00063," *Eurostat website*, 2012b. As of 07/2012:


European Union Committee - Eighth Report: The EU’s Global Approach to Migration and Mobility. As of June 2013:
http://www.publications.parliament.uk/pa/ld201213/ldselect/ldeucom/91/9102.htm


International Monetary Fund, , *From Stimulus to Consolidation: Revenue and Expenditure Policies in Advanced and Emerging Economies* (Washington), 2010a.


Kop, Rita, "The challenges to connectivist learning on open online networks: Learning experiences during a massive open online course,” *The International Review of Research in Open and Distance Learning*, Special Issue-Connectivism: Design and Delivery of Social Networked Learning, Vol. 12, No. 3, 2011.


McAfee, Prospective Analysis on Trends in Cybercrime from 2011 to 2020, 2011.


———, Looking to 2060: A global vision of long-term growth, OECD, 2012g.


Ortiz, I., and M. Cummins, Global Inequality: Beyond the bottom billion–A rapid review of income distribution in 141 countries, 2011.


Papademetriou, Demetrios, Madeleine Sumption, and Aaron Terrazas, *Migration and Immigrants Two Years after the Financial Collapse: Where Do We Stand?*, Washington DC: Migration Policy Institute, 2010.


Rheingold, Howard, Smart mobs: De Boeck Université, 2003.


———, "World Population Prospects, the 2012 Revision: File POP/1-1: Total population (both sexes combined) by major area, region and country, annually for 1950-2100 (thousands)” 2013. As of August 2013: http://esa.un.org/unpd/wpp/excel-data/excel_files/1_population/wpp2012_pop_f01_1_total_population_both_sexes.xls


van Dijk, Jan (2013) “Digital Inequalities” In Digital Sociology Critical Perspectives Edited by: Kate Orton-Johnson, Nick Prior


World Bank Development Indicators, "Proportion of seats held by women in national parliaments (%)," 2012. As of 08/03/2013: http://data.worldbank.org/indicator/SG.GEN.PARL.ZS


