



Updating the single market: Will Europe's digital strategy succeed?

November 11, 2015

Author

Patricia Wruuck*
+49 69 910-31832
patricia.wruuck@db.com

Editor

Barbara Böttcher

Deutsche Bank AG
Deutsche Bank Research
Frankfurt am Main
Germany
E-mail: marketing.dbr@db.com
Fax: +49 69 910-31877

www.dbresearch.com

DB Research Management
Ralf Hoffmann

*The author thanks Jan-Eric Filipczak for research assistance.

The single market is and remains the centrepiece of Europe's economic architecture. Since its "completion" in 1993, it has been growing in size and adapting to changing economic conditions, for instance taking into account the increasing importance of services. 22 years back, digital technologies were only at an infant stage. Since then, they have been emerging as a major transformative force – at micro-level for businesses but also in terms of changing economic structures – with further impact still to come.

Functioning of the Digital Single Market (DSM) is likely to become ever more important for the single market. With digital technologies becoming more and more engrained in member states' economies, their importance for the functioning of the single market as such increases. More often than not it is plausible to assume that digital technologies and the single market work to reinforce each other.

Current single market arrangements are struggling to keep pace with the digital economy. Digital technologies could help unlock some of the remaining single market benefits. At the same time, with digitisation advancing, adapting single market rules becomes increasingly important to ensure its functioning. Similarly, the more consumers and firms engage in online activities, the more remaining barriers come to the fore. The European Commission has stepped up efforts to foster the DSM with a dedicated strategy envisaging 16 measures until the end of 2016 to help tap the DSM's growth potential. In addition, the Commission recently announced further steps to strengthen the internal market. Together, they show how increasingly intertwined the single market and digital issues have become.

Big expectations have been attached to the DSM – but the gains associated with it are unlikely to materialise automatically. First, they are contingent on implementation. Second, isolated improvements may not deliver because multiple bottlenecks remain. Third, success of the DSM ultimately hinges on adoption of technology by consumers and enterprises – this is something regulation can encourage but hardly force. To that extent, perhaps the biggest challenge for realising the DSM is creating an environment supportive to – or at least allowing for – disruption and creative destruction in Europe.

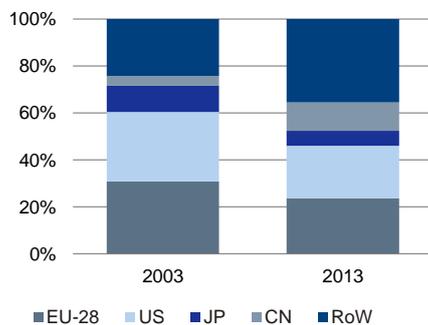


Updating the single market: Will Europe's digital strategy succeed?

Global shift in growth poles

1

Share in global GDP by region



Source: Eurostat, Deutsche Bank Research

E-commerce: Expect further growth - in Europe but even more elsewhere

2

B2C e-commerce in USD bn



Source: eMarketer (2014), Deutsche Bank Research

Updating the single market

The single market is the centrepiece of Europe's economic architecture. With about 500 bn people, more than 20 million firms and a GDP of EUR 13.9 trillion¹ its 28 member states together account for a considerable – albeit shrinking – share in the global economy. The economic rationale for the single market is based on the idea that the whole is greater than the sum of its parts: by bringing down internal barriers, economic integration boosts competition and efficiency, thereby raising growth.

A key strength of the single market project has been its ability to evolve and adapt to changing circumstances. This includes past enlargement rounds as well as accounting for the increasing importance of services, mirroring structural shifts in economies. Given the increasing importance of digital technologies, fostering a digital single market seems like the natural next step.

Digital technologies have been increasingly powering the exchange of goods and services, changing production processes in firms as well as turning entire sectors upside down. At the same time, “digital” has been increasingly eyed for its potential to drive growth – all the more so against the background of the economic crisis and a slow recovery in Europe. The way the single market functions today hinges more and more on the functioning of a digital single market (DSM). Nonetheless, single market rules often have not kept pace with technological change.

European Commission president Jean-Claude Juncker made the internal market and the DSM in particular a political priority when he took office, and followed up by launching a dedicated strategy to realise the DSM in May 2015.³ Just recently, the Commission added further steps to strengthen the internal market.⁴ The following sections look at the rationale and economic potential of the DSM, the set of measures proposed and its chances of success.

The single market: Past, present and future?

3

1957: Treaty of Rome signed and European Economic Community founded

1968: European Customs Union established

1985: White paper on the internal market proposed measures to reduce internal trade barriers, inter alia principle of mutual recognition

1987: Single Market Act (SEA) introduces institutional changes (qualified majority voting) to facilitate realisation of single market and the four fundamental freedoms by 1992

1993: Over 90% of the agreed SEA objectives had been achieved

1995-2013: Enlargement rounds of the single market

2006: Adoption of the Services Directive

2010: Monti Report to “re-launch” the single market points to “digital” as one of the main area where the single market needs completion and suggests creating a DSM – including measures on telecommunications and infrastructure, e-commerce and copyright law.

2011: Single Market Act I proposed 12 areas to strengthen growth and confidence in the single market. With respect to the DSM, the focus is on mutual recognition of e-identification and authentication (e-signatures). Other action areas with potential relevance for digital – for instance intellectual property and dispute resolution – are raised as part of the single market strategy in general.

2012: Single Market Act II proposed a new set of priority actions to strengthen the single market against the background of continuing economic crisis.² Supporting the digital economy identified as one out of four growth drivers. Actions focused on new payment rules to facilitate e-commerce, communication infrastructure and e-invoicing for public procurement.

2015: Digital Single Market Strategy and new Single Market Strategy launched. The DSM strategy contains a set of 16 measures ranging from e-commerce, cybersecurity and ICT standardisation through to wider issues that matter for the digital economy including market structures and adapting rules with an eye towards digital (e.g. copyright or taxation). The internal market strategy adds on several points relevant to the digital economy, including a focus on start-ups, standardisation, IP protection and the collaborative economy.

Source: Deutsche Bank Research

¹ Values refer to 2014, at current prices (Eurostat http://ec.europa.eu/eurostat/statistics-explained/index.php/National_accounts_and_GDP).

² See Wruuck (2012).

³ See Juncker (2014) and European Commission (2015a).

⁴ European Commission (2015b).



Why a digital single market?

The classic case for the single market

The well-known economic rationale for the single market project is based on the logic of economic integration. Reducing internal barriers

1. boosts internal trade and helps to reduce barriers to market entry
2. promotes competition, enabling economies of scale and improving efficiency
3. can help to increase attractiveness to foreign investors.

Following this logic, market integration yields higher growth, job creation and welfare gains.

ICT investment: Selected countries in comparison 4

Percentage of total non-residential gross fixed capital formation, values 2010 or latest available year



Sources: OECD, Deutsche Bank Research

To realise these gains, the single market envisages deeper integration than classic free trade areas or customs unions. It aims to tackle non-tariff barriers often resulting from differences in regulations in order to promote the free movement of goods, services, capital and people among its members. To that extent, common rules are an instrument towards and play a key role in unlocking the expected economic benefits.

While benefits may not come without costs – e.g. adjustment to new rules, fit of regulation for individual countries and market conditions, and possibly “too many” or “too centralised” bureaucratic structures – assessment of the single market suggests that integration has delivered economic benefits. For example, Ilzkovitz et al. (2007) estimated that progress on the single market between 1992 and 2006 helped to generate additional income of 2.2% in 2006.

Earlier studies such as the widely quoted Cecchini report in 1988 often forecasted higher gains.⁵ In hindsight, some of the estimates on single market benefits may appear somewhat on the high end. Yet it comes with the nature of the issue that aggregate economic effects of market integration are hard to pinpoint. Partly, this is due to methodological reasons, for example establishing alternative scenarios and identifying relevant controls. Also, it remains a point for discussion whether findings that turn out lower than expected are due to overoptimism in the beginning or incomplete implementation of the single market. In addition, changes in economic structure (declining role of manufacturing) may have contributed to discrepancies. By and large, though, empirical evidence tends to support the intuition that the basic logic of market integration (still) works and (continues to) hold economic benefits.⁶

Growth accounting of the business sector 5

Value added	Employment	ICT capital	Non ICT capital	Productivity
US	3.1	0.9	0.8	0.6
JP	1.2*	0.0	0.4	0.2
UK	2.7	0.9	0.7	0.3
DE	1.6	-0.1	0.6	0.4
IT	1.4	0.8	0.5	-0.5
FR	0.7	0.7	0.5	0.4

Estimates for 1995-2007 (* 1995-2006), in percent
Sources: Spiezia (2012), Deutsche Bank Research

The economic rationale for the DSM: Current deficits and future potential

The economic rationale for the DSM builds on basic economic theory about the impact of digital technology, market integration, assessments of structural characteristics as well as gaps in Europe, notably

1. The role of technological change and innovation as a key driver of long-term growth, particularly in advanced economies. Basically, there are three channels through which digital technologies can impact on growth, i.e. through

⁵ The Cecchini report for instance suggested wealth effect of +4.25-6.5% of GDP for the EU-12.

⁶ For a discussion of the different dimensions as well as some methodological challenges when assessing single market effects, see Vetter (2013).

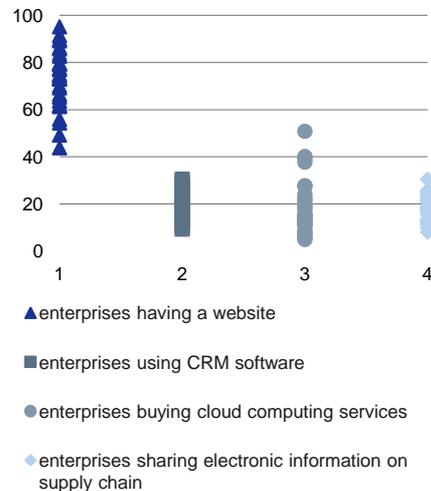


Updating the single market: Will Europe's digital strategy succeed?

Digital enterprises: Most have a website, other dimensions vary

6

Percentage of enterprises using technologies



Sources: Eurostat, Deutsche Bank Research

- the sectoral contributions of ICT-producing sectors (e.g. equipment and services) to GDP
- investment in ICT capital by firms
- productivity improvements resulting from ICT investments in technology-using sectors

2. *The observation that investment in ICT has been relatively low in Europe.* While this is partly due to differences in economies' sectoral composition, it contributes to concerns about future growth potential.
3. *The observation that productivity growth in Europe has been relatively low in Europe.* Divergences in productivity predate the economic and financial crisis, going back to the 1990s. Also, ICT has been one of the factors explaining it for quite some time. While in the late 1990s the focus had been more on productivity increases in ICT-producing sectors, it shifted to developments in technology-using industries, identifying slow take-up and adaptation as a key culprit.⁷ Estimates suggest that the productivity differential between the US and the EU due to ICT added up to 0.2% growth per year between 2006 and 2011. With the crisis dampening productivity growth and raising concerns about secular stagnation, potential sources to generate long-term growth are now more dearly sought than ever.
4. *The large number of small firms in Europe.* Small and medium-sized businesses account for about 90% of all firms. Technology can help firms to increase efficiency regardless of size. For SMEs in particular though, technology can help to facilitate access to a larger market despite their limited size.

Two features are noteworthy with respect to digital technologies in general and the digital single market in particular, i.e. the (changing) importance of scale and of regulation.

1. *Scale matters* in the digital economy. This makes (potential) market size a key feature, also as an incentive for innovation. On the one hand, digital technologies can work to reduce the impact of firm size in the sense that it has become much easier to tap foreign markets, even for small firms, selling via electronic channels. On the other, SMEs have a harder time to overcome fixed costs resulting, for instance, from differences in regulations.
2. *Regulation matters* – barriers to economic integration in the digital economy are to a lesser extent about tariffs and transport costs. For global trade in goods, the shift in focus from reducing tariffs to tackling NTBs took decades and several trade rounds. For the digital economy, it has become clear rather quickly that non-tariff barriers are the core of the matter. Examples are interoperability of technologies or differences in legislation with respect to data protection. Also, because the internet is a general purpose technology it is by nature a cross-cutting issue when it comes to regulation.

Definition and rationale for the digital single market reflect both. A fully integrated DSM as envisaged by the European Commission “is one in which the free movement of goods, persons, services and capital is ensured and where individuals can seamlessly access and exercise online activities under conditions of fair competition, and a high level of consumer and personal data protection, irrespective of their nationality or place of residence”.⁸ It is about enhancing the potential market (scale!) via decreasing fragmentation, reemphasising the traditional single market freedoms. At the same time, it underscores the role of regulation in realising and shaping the DSM.

Network effects

7

A product or service is said to exhibit network effects if one person using it impacts on its values for others. If network effects are positive, the more people use it, the more valuable it become – a classic example being telecommunications. Digital technologies and services often show network effects with additional users for instance adding to market depth, product variety or better information. Network effects also underpin the rise of platforms in the digital economy.

Network effects can be

- *direct*, i.e. each additional user adds value for other users of the good or service
- *indirect*, i.e. increased use of one product adds value to a complementary product or network (cross-side)
- *two-sided*, i.e. additional use by one side (e.g. users) adds to value of the network for the other side of the market (e.g. producers) and vice versa.

Network effects are externalities and often tend to promote concentration. While they are nothing new in principle, their prevalence in the digital economy implies new challenges for regulation and competition policy.

Source: Deutsche Bank Research

⁷ See for instance Brynjolfsson (2011), van Welsum et al (2013), van Ark, O'Mahony and Marcel Timmer (2008) or Bloom and van Reenen (2012).

⁸ See European Commission (2015a): Communication on the Digital Single Market.



Updating the single market: Will Europe's digital strategy succeed?

Digital technologies and the single market – interaction and reinforcing effects

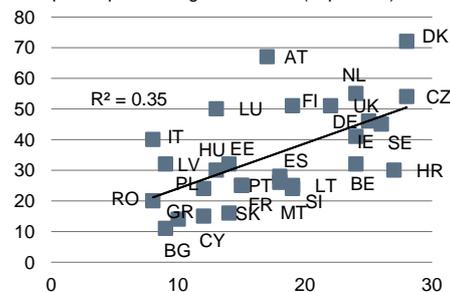
More often than not it is plausible to assume that digital technologies and the single market work to reinforce each other. Both technology and common rules can separately contribute to lower barriers to trade, foster competition and boost efficiency. Each can be a separate driver – but the point of the DSM is their interaction and the existence of conditional effects. This also implies that with digital technologies becoming more and more engrained in member states' economies, their importance for the functioning of the single market as such increases.

Estimated gains: Again big expectations

Digital sales and purchases

8

X-axis: Enterprises selling via internet, Y-axis: enterprises purchasing via internet (in percent)



Values 2014, except RO on purchases (2013). Enterprises with 10 persons employed or more, without financial sector.

Sources: Eurostat, Deutsche Bank Research

Expectations for the DSM are high. The European Commission suggests that creating a fully functioning DSM could add about EUR 415 bn per year to EU GDP and help to create several hundred thousand new jobs.⁹ Basically, this reflects effects from a fully-functioning DSM, i.e. gains from digital technologies as well as improvements in the single market.

Arguably, precisely estimating gains from digital technologies in general and the DSM in particular are even more challenging than from traditional single market effects. This is due inter alia to

1. Time lags for effects of technological change to show up in statistics
2. Availability of data on features of the digital economy, e.g. "digital trade" statistics, to underpin projections
3. High uncertainty about the impact of technology on industries and market structures, making medium-to-longer-term projections more difficult.

While projections should therefore preferably be treated as an indicative range, recent analyses of structural reforms that have already been undertaken to improve the functioning of digital markets may also provide some indication of potential effects. Looking at four areas – spectrum allocation, professional ICT skills, e-commerce and broadband – Lorenzi and Varga estimate the long-run effects of digital reforms that have already been undertaken to add approx. 1% over the baseline to GDP. On this basis, they calculate that further reform steps could add up to additional GDP increases of more than 3%.¹⁰ The integration of e-business models and reinforcing DSM would account for a considerable share here. Effects of e-commerce basically work via two channels, i.e. efficiency improvements in the production chain leading to increases in total factor productivity and increasing competition.

E-commerce

To that extent, the DSM continues to hold potential. E-commerce has been growing considerably during past years. In 2014, 50% of Europeans stated that they ordered goods or services online, i.e. an 18 percentage point increase

⁹ See Commission Communication on the digital single market and European Parliament Research Service (2014).

¹⁰ Estimates are based on identifying transmission channels for the respective markets, assessing partial equilibrium effects and then simulating GDP impact based on a DSGE-model. For individual member states, estimated growth effects are positive as well. See Lorenzani and Varga (2014).



Updating the single market: Will Europe's digital strategy succeed?

compared to 2008.¹¹ Most B2C e-commerce remains domestic though. Hopes are that further market integration could help to boost cross-border e-commerce, thereby reinforcing both efficiency and competition effects. While the share of people purchasing goods or services in other member states when abroad, e.g. for travel or business, has remained rather stable in recent years, cross-border shopping via the internet has seen some – albeit moderate – increases.¹²

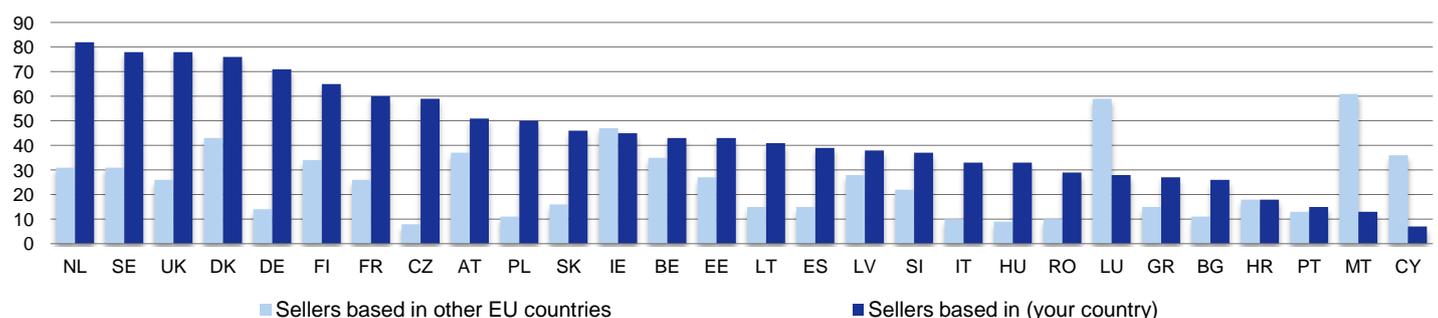
Again, some realism seems warranted: part of e-commerce is bound to remain domestic, partly due to “natural” barriers to trade (language) or differences in preferences. Nonetheless, there are reasons to expect gains from fostering e-commerce. For consumers, key drivers for cross-border shopping are lower prices and greater variety.¹³ Against that background, e-commerce can help to lower search costs, i.e. making it easier to compare price offerings, and access niche markets. On the one hand digital technologies have created opportunities to seize remaining potential of the single market. On the other, “digital” does not automatically equal “borderless”. Customers may for instance be charged different prices, have limited access to online offers depending on location¹⁴ or face for instance “offline issues” such as delivery problems that prevent them from ordering or accessing goods and services online. The more intensively digital channels are used, though, the more these come to the fore – and impact on the functioning of the single market as well as the perception thereof.

Current patterns suggest that it is often countries with smaller domestic markets – where some of the benefits from trade should be greater (relatively) – that show greater cross-border activity and growing interest. General cross-border purchasing behaviour has changed little during past years and distance as well as search costs naturally remain issues. To that extent, (cross-border) online channels still offer a potential source of efficiency gains and harmonisation of rules might at least help.

Domestic and cross-border ecommerce in the EU

9

Percentage of people who bought or ordered any goods or services over the internet for private purposes from any of the following (last 12 months, multiple answers possible)



N=21,015. Base: respondents who use the internet.

Sources: Eurobarometer. Deutsche Bank Research

¹¹ Share refers to individuals aged 16-74 ordering goods or services for private use. See Eurostat http://ec.europa.eu/eurostat/statistics-explained/index.php/Information_society_statistics_-_households_and_individuals

¹² The share of individuals using the internet for ordering goods or services from other EU countries increased by 3 pp to 15% from 2012 to 2014 while the share of people buying abroad when travelling (excluding expenditure linked to trips) remained basically constant at about 19%. <http://ec.europa.eu/eurostat/tgm/table.do?tab=table&init=1&plugin=1&language=en&pcode=tin00003> and Special Eurobarometer 424 (2015).

¹³ See Eurobarometer 424. 57% of Europeans surveyed state “lower prices” and 30% “greater variety” as reasons for cross-border shopping.

¹⁴ The issue of “geoblocking” has come increasingly into focus and is currently subject to a public consultation. See <https://ec.europa.eu/eusurvey/runner/geoblocksurvey2015/>



Updating the single market: Will Europe's digital strategy succeed?

Enterprise opinions are in line with a positive but pragmatic picture. About 57% of companies that sell online in other EU countries expect a positive impact on sales if the same rules for e-commerce were applied in all member states.¹⁵ Overall, costs remain the main concern from companies' perspective related to e-commerce. Notably, these are related to deliveries, costs of guarantees and returns as well as resolving cross-border disputes and taxation issues.¹⁶ Lack of knowledge about the rules that have to be followed (general and cross border), also remains an obstacle.

To a large extent, the factors that are perceived as a burden by companies selling online are similar to those mentioned as obstacles to engaging in e-commerce by firms that have not been selling online up until now. In addition, what the company surveys clearly show is that there are multiple challenges for (cross-border) e-commerce – rather than one single problem.

What steps are envisaged to realise the DSM?

The DSM strategy is based on three pillars:

1. Improving online *access* to digital goods and services
2. Improving the *environment* for digital networks and services
3. Ensuring that *digitisation* is leveraged to *drive growth*

Actions envisaged to complete the DSM

10

Pillar	What?	When?
Access	Legislative proposal for simple and effective cross-border contract rules for consumers and businesses	2015
	Review to prepare legislation to tackle unjustified geoblocking	2015
	Competition sector inquiry into e-commerce, relating to the online trade of goods and provision of services	2015
	Legislative proposal for reform of copyright regime	2015
	Review of the satellite and cable directive	2015/6
	Measures on parcel delivery	2016
	Review of regulation on consumer protection cooperation	2016
	Legislative proposal to reduce administrative burden on businesses arising from different VAT regimes	2016
	Environment	Analysis of the role of platforms in the market including illegal content on the internet
Growth potential	Legislative proposal to reform telecommunication rules	2016
	Review of the Audiovisual Media Services Directive	2016
	Review of the ePrivacy directive	2016
	Establishment of a contractual public-private partnership on cybersecurity	2016
	Adopt a priority ICT standards plan and extend European interoperability framework for public services	2015
Growth potential	Initiatives on data ownership, free flow of data (e.g. between cloud providers) and on a European cloud	2016
	New e-government action plan including inter alia an initiative to build up the interconnection of business registers	2016

Over the next two years, 16 actions – both legislative and non-legislative – are envisaged. In terms of instruments, part of the measures are reviews of existing rules and arrangements, e.g. for e-privacy. Partly, new proposals are planned. Some areas are going to be subject to further analysis first in order to determine whether (and if so, what) further actions may be necessary. To that extent, several public consultations have been launched already to collect views for instance on geoblocking, cross-border e-commerce and VAT, standards for the DSM and

¹⁵ See Eurobarometer 413 (2015).

¹⁶ Refers to EU. Note that (perceived) severeness of obstacles varies across member states, reflecting local conditions (e.g. infrastructure, market structure and regulation) playing a role.



Updating the single market: Will Europe's digital strategy succeed?

platforms. Notably, the instruments include a sectoral inquiry into e-commerce reflecting the Commission's concerns about competition in digital markets.¹⁷

What are the main challenges?

Commission initiatives to foster digital technology and promote the DSM in Europe are certainly nothing new, so this strategy is rather about continuing and refocusing efforts. As such, it can provide additional impetus given the remaining gaps and barriers to digital market integration, fast-changing technologies and market conditions. They make it necessary to adapt existing legislation, reduce barriers and prevent fragmentation in areas where up until now few rules exist.

From an economic perspective, three issues stand out. First, this is not a sectoral strategy to promote ICT. Rather, the breadth and the nature of issues that are being addressed show how far digitisation has already advanced and emphasise its role as a general-purpose technology in the economy. Second, it becomes clear that to "promote online" it is offline barriers that need to be addressed. Many of the issues that are perceived as potential issues to e-commerce for instance are due to differences in rules and practices, e.g. contract law and VAT handling or logistic structures (parcel delivery). To that effect, the persistent differences across countries, for instance with respect to the use of digital technologies, also point to the importance of national market structures and local rules affecting digitisation. Finally, it hints at the role of market structures and their increasing importance to develop digital markets. Partly, these are complex and often controversial issues to tackle and different preferences are likely to loom large.

From a political perspective, the chances of (timely) success remain mixed. On the one hand, the fact that digital has been designated as one of the priority issues by the European Commission has raised the stakes to deliver. Also, rather than a project pushed by a single directorate, this time it is a joint effort by two commissioners (VP Ansip and Oettinger). This should help to ensure political ownership while at the same time making clear that the DSM is not a standalone sectoral strategy. In addition, a number of other high-profile initiatives on the European agenda, e.g. the EFSI, also have a built-in "digital edge". On the other hand, omnipresence does not guarantee success. Digital issues reflect structural changes, for instance in terms of consumer behaviour, firms' production processes etc. However, political attention naturally focuses on immediate issues. The challenge for the strategy is to continue piecemeal work over the months to come nonetheless.

Can the DSM boost growth in Europe? Yes. Can the DSM package do it? It depends.

All in all, the steps that the European Commission has proposed would likely help to foster a DSM and tap the growth benefits associated with it. Yet they don't guarantee success. Notably, this is for three reasons:

1. Implementation

The Commission relies on member states' support to adopt measures and put them into practice. This could considerably prolong the timeline. Take for instance the rules on data protection, arguably a key piece to ensure consumer trust in digital services, where negotiations have been going on since 2012. It is the combination of legal complexity, technological

¹⁷ On the e-commerce inquiry see http://europa.eu/rapid/press-release_MEMO-15-4922_en.htm



Updating the single market: Will Europe's digital strategy succeed?

uncertainty, the cross-cutting nature of the issue and different practices across member states that have made it difficult to find a quick compromise. For some areas such as copyright reform, similar constellations might emerge.

Also, the Council conclusions from June might already hint at some different priorities for member states.¹⁸ While emphasizing support for the DSM strategy in general, some areas are missing from the list of priorities, e.g. plans for regulatory oversight of cross-border parcel delivery, common rules to purchase digital content or enhanced cooperation on consumer protection. The wording in the conclusions also tries to carefully strike a balance between the need for market integration "while respecting national competences". Notably, member states raised the issue of financing for digitisation among the key priorities, which – albeit briefly addressed – does not play a central role for measures in the communication.

2. Uptake

A large part of the (productivity) benefits that can be reaped from ICT are contingent on *use*. Yet how ICT gets used – by consumer and firms – and whether it is leveraged to full extent is something that is hard to tackle via legislation. To that extent, the strategy can play an encouraging role at best.

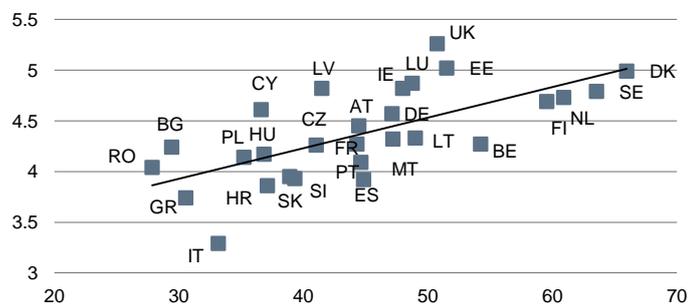
For consumers, both convenience and trust influence adoption. In this context, consumer protection issues are likely to gain more prominence in the future, also for the European Commission.

How firms make use of technology is first of all a microeconomic question. Research often emphasises factors such as management practices that affect firms' ability to capitalise on digital technologies.¹⁹ However, there is a second layer to it: in order to derive the benefits of ICT, organisational changes often prove necessary. Yet the more rigid the (macro)economic structures, the more difficult it is to implement the changes.²⁰ Here, digitisation ties in with the larger debate about economic reforms and structural rigidities in Europe.

Digitisation and labour-market efficiency in the EU:
Virtuous Cycles I?

11

X-axis: Degree of digitisation. Y-axis: Labour market efficiency. Higher values indicate greater efficiency/digitisation being more advanced.



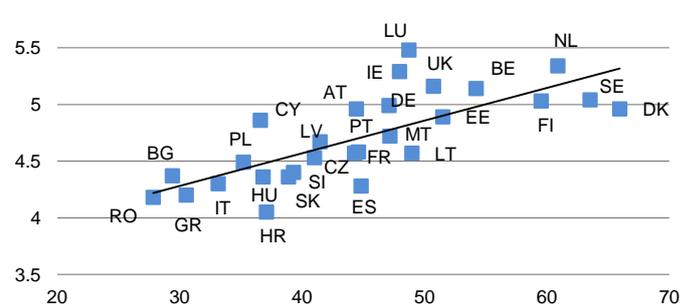
Digitisation refers to DESI composite score (equal weights for all dimensions). WEF values 2014. Bivariate correlation.

Sources: World Economic Forum, European Commission, Deutsche Bank Research

Digitisation and goods-market efficiency:
Virtuous cycles II?

12

X-axis: Degree of digitisation. Y-axis: Goods market efficiency. Higher values indicate greater efficiency/digitisation being more advanced.



Digitisation refers to DESI composite score (equal weights for all dimensions). WEF values 2014. Bivariate correlation.

Sources: World Economic Forum, European Commission, Deutsche Bank Research

¹⁸ See Council Conclusions 25 June 2015.

¹⁹ See for instance Bloom, Nicholas, Raffaella Sadun, and John Van Reenen (2012).

²⁰ See Bourlés et al. (2012).



Updating the single market: Will Europe's digital strategy succeed?

3. Interaction effects and coping with disruption?

Taking advantage of the single market is certainly easier where preconditions not only in terms of infrastructure but also skills are met. But interactions go beyond that: a key issue is how flexible economies are and how well they can cope with additional flexibility and competitive pressure that digital technologies – and eventually a fully-fledged DSM – could induce. To some extent, these might be contingent on each other, i.e. the more flexible an economy already is, the easier to adapt and the larger the eventual benefits. At the same time, cumbersome procedures and national regulations can hinder the adoption of new business models and their potential to scale up quickly in the single market. Hence, rather than depending on single actions, the success of the strategy hinges on interactions of different measures and conditions also in other markets (product, labour etc.) that are beyond the DSM strategy.

Finally, perhaps the biggest challenge for realising the DSM is creating an environment supportive to – or at least allowing for – disruption and creative destruction. This is going to be challenging from a politico-economic perspective because it means dealing with incumbent demands and sometimes dismantling legacy structures. Ultimately, however, a large part of the gains are contingent on letting this happen.

Patricia Wruuck (+49 69 910-31832, patricia.wruuck@db.com)

References

- Bloom, Nicholas, Raffaella Sadun and John Van Reenen (2012): Americans do IT better: US multinationals and the productivity miracle. *The American Economic Review*, Vol.102 (1), pp.167-201.
- Bourlés, Renaud, Gilbert Cette, Jimmy Lopez, Jacques Mairesse and Giuseppe Nicoletti (2012): Do product market regulations in upstream sectors curb productivity growth? Panel data evidence for OECD countries. *Review of Economics and Statistics*. MIT Press, Vol. 95(5), pp.1750-1768.
- Brynjolfsson, Erik (2011): ICT, innovation and the e-economy. In *EIB papers* Vol.16(2). Productivity and Growth in Europe. EIB.
- Cecchini, Paolo, Michel Catinat, and Alex Jacquemin (1988): The European Challenge 1992: The benefits of a Single Market.
- Juncker, Jean-Claude (2014): A New Start for Europe: My Agenda for Jobs, Growth, Fairness and Democratic Change. Political Guidelines for the next European Commission. Opening Statement in the European Parliament Plenary Session.
- Eurobarometer 413 (2015): Companies engaged in online activities. Flash Eurobarometer.
- Eurobarometer 424 (2015): Public perceptions of VAT. Special Eurobarometer.
- European Commission (2015a): A Digital Single Market Strategy for Europe. COM (2015) 192.
- European Commission (2015b): Upgrading the Single Market: more opportunities for people and business. COM (2015) 550.
- European Parliamentary Research Services (2014): Mapping the costs of non-Europe.



Updating the single market: Will Europe's digital strategy succeed?

- Ilzkovitz, Fabienne, Adriaan Dierx, Viktoria Kovacs and Nuno Sousa (2007): Steps towards a deeper economic integration: The Internal Market in the 21st century. A contribution to the Single Market Review. *European Economy* No.271.
- Lorenzani, Dimitri and Janos Varga (2014): The Economic Impact of Digital Structural Reforms. European Commission Economic Working Papers, No.529.
- Spiezia, Vincenzo (2012): ICT investments and productivity. Measuring the contribution of ICTS to growth. *OECD Journal: Economic Studies*, Vol. 2012/1.
- Van Ark, Bart, Mary O'Mahony and Marcel Timmer (2008): The Productivity Gap between Europe and the U.S.: Trends and Causes. *Journal of Economic Perspectives*, Vol. 22 (1), Winter, pp. 25-44.
- Van Welsum, Désirée, Willem Overmeer and Bart van Ark (2013): Unlocking the ICT growth potential in Europe: Enabling People and Businesses. Study prepared for the European Commission DG Communications Networks, Content & Technology.
- Vetter, Stefan (2013): The Single European Market 20 years on. *EU Monitor*. Deutsche Bank Research.
- Wruuck, Patricia (2012): Single Market Act II: New stimuli for banking market integration? Talking point. Deutsche Bank Research.

© Copyright 2015. Deutsche Bank AG, Deutsche Bank Research, 60262 Frankfurt am Main, Germany. All rights reserved. When quoting please cite "Deutsche Bank Research".

The above information does not constitute the provision of investment, legal or tax advice. Any views expressed reflect the current views of the author, which do not necessarily correspond to the opinions of Deutsche Bank AG or its affiliates. Opinions expressed may change without notice. Opinions expressed may differ from views set out in other documents, including research, published by Deutsche Bank. The above information is provided for informational purposes only and without any obligation, whether contractual or otherwise. No warranty or representation is made as to the correctness, completeness and accuracy of the information given or the assessments made.

In Germany this information is approved and/or communicated by Deutsche Bank AG Frankfurt, licensed to carry on banking business and to provide financial services under the supervision of the European Central Bank (ECB) and the German Federal Financial Supervisory Authority (BaFin). In the United Kingdom this information is approved and/or communicated by Deutsche Bank AG, London Branch, a member of the London Stock Exchange, authorized by UK's Prudential Regulation Authority (PRA) and subject to limited regulation by the UK's Financial Conduct Authority (FCA) (under number 150018) and by the PRA. This information is distributed in Hong Kong by Deutsche Bank AG, Hong Kong Branch, in Korea by Deutsche Securities Korea Co. and in Singapore by Deutsche Bank AG, Singapore Branch. In Japan this information is approved and/or distributed by Deutsche Securities Limited, Tokyo Branch. In Australia, retail clients should obtain a copy of a Product Disclosure Statement (PDS) relating to any financial product referred to in this report and consider the PDS before making any decision about whether to acquire the product.