Productivity in Europe

Trends and drivers in a service-based economy

FACTSHEET - NETHERLANDS (NL)
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Key messages

- The Netherlands ranks best among EU-15 countries in terms of intangible investment-to-capital ratio, which is the consequence of its high investments into non-National Accounts intangibles. As a consequence, its contribution from intangible investment to productivity growth is also among the leading countries.

- Entry rates in services declined between 2008 and 2017. The decline is widespread across industries. Entry rates of larger-than-micro firms decreased below the average EU level in the business services sector, which may constitute an impediment to productivity growth.

- The sectoral composition of the Dutch economy bears a detrimental effect on both labour productivity levels with respect to the EU average and labour productivity growth rates. On a sectoral basis, the impact of firm’s size distribution on productivity is very limited in the majority of activities, with a few exceptions in manufacturing, information and communication, and some hi-tech industries.

1 Impact of structural change and productivity in services

Table 1. NL – Average labour productivity growth in the period 1910–2017 computed using the 1-digit sector nominal value added weights prevailing in each base year, including and excluding services (%).

<table>
<thead>
<tr>
<th>Base year</th>
<th>All industries (including services)</th>
<th>All excluding services</th>
</tr>
</thead>
<tbody>
<tr>
<td>1970</td>
<td>2.14</td>
<td>2.90</td>
</tr>
<tr>
<td>1980</td>
<td>1.98</td>
<td>2.88</td>
</tr>
<tr>
<td>1990</td>
<td>2.03</td>
<td>3.00</td>
</tr>
<tr>
<td>2000</td>
<td>1.94</td>
<td>2.86</td>
</tr>
<tr>
<td>2010</td>
<td>1.83</td>
<td>2.73</td>
</tr>
<tr>
<td>2017</td>
<td>1.80</td>
<td>2.82</td>
</tr>
<tr>
<td>Actual</td>
<td>1.90</td>
<td>2.57</td>
</tr>
</tbody>
</table>

Source: STAN and EU KLEMS, 2019.
Note: the real estate sector is excluded from these computations.

Dutch average real labour productivity growth in the 1970–2017 period would have been about 0.24 percentage points higher (about 12.6 % higher) compared to the actual one if the economic structure prevailing in 1970 had remained the same (see Table 1).1 In addition, when excluding services from the computation of the counterfactual average labour productivity growth rates, the latter increase from 2.14 % (services included) to 2.9 % (services excluded) when using 1970 value added weights, and from 1.8 % to 2.82 % with 2017 weights. This implies that the servicification of the economy has been a drag to overall productivity performance.

Table 2 shows the drivers at the 1-digit level of such negative impact of structural change on productivity growth. Two main observations emerge. First, the weights of the agricultural and manufacturing sectors have shrunk from 1970 to 2017, by about 61 % and 48 %, respectively. Since these sectors have experienced relatively better performance in terms of productivity growth, the reduction in their shares has negatively affected economy-wide productivity growth. However, the mild decrease of the weight of the manufacturing

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1 The difference between the 1970 base-year counterfactual and the actual growth rate in the first column of Table 1 isolates the impact of structural change.
sector and a high average labour productivity growth relative to the countries analysed\(^2\) partially offsets the negative effect on productivity of the *tertiarization* process. Second, construction, along with several service sectors, have negatively affected the average growth rate of labour productivity, albeit not by more than in other countries. All things considered, the impact of structural change is overall subdued in the Netherlands compared to other countries.

**Table 2.** NL – Value added shares and average labour productivity growth, 1970-2017 (%).

<table>
<thead>
<tr>
<th>Sector</th>
<th>Value added share 1970</th>
<th>Value added share 2017</th>
<th>Average labour productivity growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture, forestry and fishing</td>
<td>5.6</td>
<td>2.2</td>
<td>5.1</td>
</tr>
<tr>
<td>Mining and quarrying</td>
<td>2.0</td>
<td>1.2</td>
<td>3.3</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>25.3</td>
<td>13.1</td>
<td>3.5</td>
</tr>
<tr>
<td>Electricity and water supply, waste management and others</td>
<td>2.4</td>
<td>1.8</td>
<td>2.0</td>
</tr>
<tr>
<td>Construction</td>
<td>9.1</td>
<td>4.8</td>
<td>0.1</td>
</tr>
<tr>
<td>Wholesale and retail trade, repair of motor vehicles and motorcycles</td>
<td>13.7</td>
<td>15.1</td>
<td>3.4</td>
</tr>
<tr>
<td>Transportation and storage</td>
<td>6.3</td>
<td>5.1</td>
<td>0.8</td>
</tr>
<tr>
<td>Accommodation and food service activities</td>
<td>1.7</td>
<td>2.2</td>
<td>0.2</td>
</tr>
<tr>
<td>Information and communication</td>
<td>2.4</td>
<td>5.2</td>
<td>2.5</td>
</tr>
<tr>
<td>Financial and insurance activities</td>
<td>4.0</td>
<td>7.9</td>
<td>3.1</td>
</tr>
<tr>
<td>Professional, administrative and other activities</td>
<td>6.6</td>
<td>16.2</td>
<td>0.6</td>
</tr>
<tr>
<td>Other services (community, social, and personal services)</td>
<td>20.9</td>
<td>25.1</td>
<td>0.5</td>
</tr>
<tr>
<td><strong>Services overall</strong></td>
<td><strong>55.5</strong></td>
<td><strong>76.9</strong></td>
<td><strong>1.5</strong></td>
</tr>
</tbody>
</table>

Note: the real estate sector is excluded.

\(^2\) This includes all EU-15 Member States except EL, IE and PT.
2 Role of intangibles in productivity in services

Figure 1. Investment-to-capital ratio (left) and contribution of intangible capital growth to productivity growth (right) in 2015.

The Netherlands ranks best among EU-15 countries in terms of intangible investment-to-capital ratio (35% versus 31%, the average). Its contribution from intangible investment to productivity growth is also among the leading countries which is the consequence of its high investments into non-National Accounts intangibles.

3 Firm size distribution and sectoral labour productivity

Figure 2. NL – Percentage difference in labour productivity at the aggregate and sectoral levels relative to the EU28 contributing effects (2016)

Figure 3. NL – Percentage change in labour productivity at the aggregate and sectoral levels, contributing effects (2012-2017)

AGG.: representative aggregate of the market economy; it includes NACE sections C, F, G, H, I, J, M and N.4 Source: based on SBS data.

Apparent labour productivity in a representative aggregate of the market economy in the Netherlands was 7.7% above the EU28 figure in 2016. This difference is the result of higher intrinsic productivity levels than peers (17.9 percentage points, pp) being compensated to a large extent by negative sectoral composition effects (-7.8 pp) and only moderately by negative firm size distribution effects (-2.4 pp).

On a sectoral basis, the impact of size distribution on productivity is very limited in the majority of activities. The most noticeable exceptions are the negative contributions in manufacturing (NACE section C) – particularly in industries with higher technological content (e.g. motor vehicles and transport equipment) – and

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4 C: Manufacturing; F: Construction; G: Wholesale and retail trade; repair of motor vehicles and motorcycles; H: Transportation and storage; I: Accommodation and food service activities; J: Information and communication; M: Professional, scientific and technical activities; N: Administrative and support service activities.
information and communication (J), where size distribution effect fully compensates higher genuine productivity levels compared with the EU benchmark.

On a dynamic perspective, recent developments (2012-2017) suggest a slight negative contribution of firm size distribution (-1.1 pp) to productivity growth (7.7 %), being the effect only significant for some sectors, namely construction (F), information and communication (J) and administrative and support activities (N).

4 Role of firm demography in productivity growth

Figure 4. NL – Entry rates in business services (left-hand side) and in 1-digit industries5 (right-hand side), percentages

Figure 5. Entry rate for firms with at least 10 employees in business services, percentages.

Entry rates (without sole proprietorships) in services declined between 2008 and 2017 (10.0 % in 2008 versus 7.7 % in 2017). Accordingly, we observe a widespread decline in entry between 2008 and 2017 across industries. A decline in entry rate is also present for larger-than-micro firms in the business services sector (2.5 % in 2008 versus 0.9 % in 2017), a segment of the corporate sector where entry rates are shown to be relevant for aggregate productivity growth. As a consequence the level of entry rate is below the average

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5 One-digit industries include: Mining and quarrying (B); Manufacturing (C); Electricity, gas, steam and air conditioning supply (D); Water supply; sewerage, waste management and remediation activities (E); Construction (F); Wholesale and retail trade; repair of motor vehicles and motorcycles (G); Transportation and storage (H); Accommodation and food service activities (I); Information and communication (J); Financial and insurance activities (K); Real estate activities (L); Professional, scientific and technical activities (M); Administrative and support service activities (N); Education (P); Human health and social work activities (Q); Arts, entertainment and recreation (R); Other service activities (S).
Europe for larger-than-micro firms (average in 2017: 1.5%). Thus there is room to improve productivity growth by stimulating business entry and business dynamism in general in the Netherlands.

5 Policies for addressing low productivity growth

In the Netherlands, policies geared towards lifting productivity can be classified into two main streams, namely productivity-enhancing innovation policy and entrepreneurship policy. The main instruments belonging to the first set are:

- **Topconstortia for Knowledge and Innovation (TKIs) and PPP-allowance.** For each euro an enterprise contributes to a TKI, the government adds another 30%. This TKI-allowance, which is intended to spur private financing for TKI projects, had a total budget of €123 mn in 2018. The evaluations of the TKI-allowance\(^6\) and the Topsector approach suggest that while some TKIs are successful in pro-actively programming new research directions and engaging private parties. Especially in this case it seems likely that the efforts lead to the discovery and exploitation of new technological opportunities.

- **SME Innovation support for Top Sectors (MIT).** The measure supports participation particularly of SMEs in all top nine sectors. The annual budget, also including regional contributions, amounts to €55 million (2016). The 2017 evaluation indicates that especially the feasibility projects are popular, making it a relevant policy for not just research by also actual development activities that might yield new production or delivery processes.

- **The tax credit for R&D (WBSO).** With an annual budget of approximately €1.2 bn in 2017, the WBSO is a very substantial instrument.

- **The tax relief for innovation, the Innovationbox (Patent Box).** Offers firms a reduced corporate tax rate for profits derived from in-house developed intangible assets. Its annual budgetary provision amounts to €1.55 bn in 2017. Because the tax instrument also contributes to the international attractiveness of the Netherlands, it may drive productivity-growth by attracting R&D-oriented firms into the Dutch innovation ecosystem.

The second route towards improving productivity levels is by raising the average productivity of the entire sphere of companies, which mostly consists of SMEs. To boost the performance of less innovative SMEs too, an SME Action Plan was published in June 2018. This plan: "[…]also adds a coherent strategy which targets productivity improvements by disseminating knowledge and best practices more effectively (in particular in digitalisation), modernising regulation and improving access to capital and skills."\(^7\) The pillars of this novel and comprehensive plan consist of:

- **Human capital:** Strengthening collaboration between SMEs and vocational schools / applied universities; entrepreneurship education; labor market flexibility policy.

- **Finance:** larger SEED funds; better access to finance; more alternative finance.

- **Digitization:** promoting ‘Smart industry’; SME digitization program; retail agenda.

- **Applying innovation:** higher budget SME-friendly policies (MIT, Innovation Credit)

- **International entrepreneurship:** e.g. improve SME participation in trade missions.

- **Regulation:** simplify laws; make tenders more accessible; protect franchisees; etc.

- **Fiscal measures:** lower tax rates for SMEs; reduce administrative burden.

- **Collaboration with regions:** Scaling up local best practices.

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\(^7\) European Commission - Internal market, industry, entrepreneurship & SMEs. 2018 SBA fact sheet - Netherlands.
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