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EUROSISTEMA
CENTRAL BANK OF MALTA

Wage Dynamics Network Survey

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BOX 2: WAGE DYNAMICS NETWORK SURVEY[1]

In 2014 the Central Bank of Malta carried out a survey as part of the Wage Dynamics Network (WDN) project.[2] This is a collaborative research programme between the European Central Bank and national central banks across the European Union that is studying wage adjustments and price-setting behaviour among EU firms. Since a similar survey was conducted in 2010, the new results allow for an analysis of the recent evolution of the Maltese labour market, specifically on developments between 2010 and 2013.[3] In addition, the use of a harmonised questionnaire among 26 countries participating in this survey will facilitate comparisons across EU countries.

The sample

A total of 271 companies were chosen to take part in the survey. Of these, 60.0% had participated in the previous wave of the survey. Companies were selected from the Business Register of the NSO, while ensuring a stratified representation of each sector and size bracket. As in the 2010 edition, companies with less than ten employees, public corporations and those operating in the agriculture and fisheries sectors were excluded. The fieldwork lasted from May till July 2014 and was carried out using face-to-face interviews.

From the sampled companies, 178 agreed to participate, implying an overall response rate of 66.0%. A response rate of 73.0% was registered among firms that had already participated in the 2010 exercise while the companies that had not participated in the previous wave had a response rate of 55.0%. Around one-third of employees of the target population were employed with businesses that participated in the 2014 survey, with coverage being strongest in financial and insurance activities, and in the manufacturing sector (see Table 1).

Weights were assigned to each company to gross up the survey micro-data to the population aggregates. The results presented in this Box were grossed up using weights based on employment data.[4]

Table 1
SAMPLE RESPONSE RATE AND EMPLOYMENT COVERAGE

	Firm				Employment		
	Population	Gross Sample	Effective Sample	Response Rate (%)	Population	Effective Sample	Coverage (%)
Manufacturing	266	51	32	62.7	17,324	7,395	42.7
Construction	130	20	9	45.0	5,154	1,505	29.2
Wholesale and retail trade	507	40	26	65.0	14,540	1,893	13.0
Accommodation and food service activities	216	31	20	64.5	11,895	2,955	24.8
Financial and insurance activities	91	30	24	80.0	7,762	5,880	75.8
Other Services	661	99	67	67.7	34,888	10,764	30.9
Total	**1,871**	**271**	**178**	**65.7**	**91,563**	**30,392**	**33.2**

Sources: Central Bank of Malta; NSO.

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2 More details can be found at https://www.ecb.europa.eu/home/html/researcher_wdn.en.html

3 The findings of the previous wave are summarised in "Wage and price setting in Malta", *Quarterly Review* 2010:4, Central Bank of Malta. As the two surveys are not identical, however, it is not always possible to compare results.

4 Two sets of weights were constructed using information such as the firm size and NACE Rev. 2 classification. One weighting system was based on the number of firms and another on the number of employees.

The economic environment

With the exception of manufacturing and construction, most sectors experienced a favourable economic environment since 2010. Chart 1 shows that close to 60% of firms in services registered increased demand between 2010 and 2013. On the contrary, around 50% of companies in manufacturing and construction reported a decline in demand during the same period. Companies in these two sectors also considered the drop in demand to be permanent, rather than temporary.

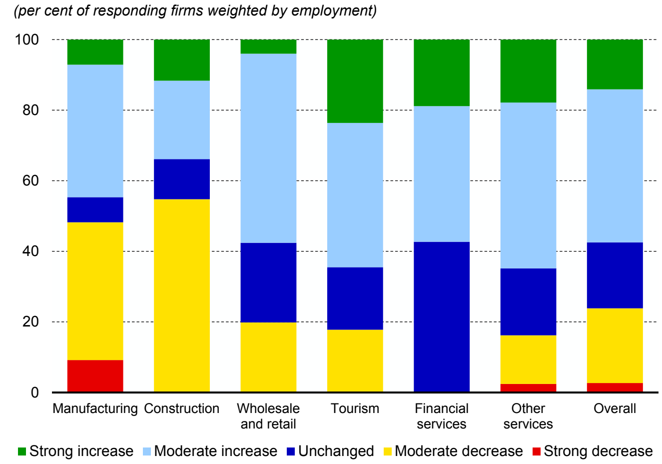
The availability of credit to finance working capital, new investment or rolling over debt were not considered relevant issues for most firms. Some companies, however, felt that while credit was available, the conditions, such as interest rates and other contractual terms, were too onerous. This problem was mainly concentrated in the wholesale and retail sector and, to a lesser extent, in construction. This finding is consistent with other surveys that show that bank credit to domestic firms is available but interest rates charged, especially for businesses, are high compared with those in other euro area economies.[5] Further information about the cost of credit is provided in the responses dealing with costs in general.

All sectors reported an increase in total costs, with 73.0% of firms reporting a "moderate increase" and another 16.0% a "strong increase".[6] Looking in more detail at cost components, the rise in total costs was mainly driven by labour and supplies. Developments in financing costs were more balanced, with around 50% of firms reporting these unchanged. However, 33.0% of firms stated that financing costs had increased, whereas only 18.0% reported a decline. This result supports the findings of a separate study by the Central Bank of Malta that had pointed towards an impaired transmission mechanism of policy rates to domestic bank lending rates, especially for non-financial corporations.[7] Around 20% of firms also reported a rise in other costs related, for instance, to utility tariffs, administrative costs and regulatory fees.

Turning more specifically to labour costs, the large majority of companies reported a rise in base wages. Slightly less than 40% of firms also awarded increases in flexible wage components, such as bonuses or fringe benefits. This form of compensation was mainly concentrated in the services sector, especially in tourism and financial services.

The increase in labour costs also reflected growth in employment. Around 52% of firms stated that higher

Chart 1
EVOLUTION OF DEMAND FOR GOODS AND SERVICES SINCE 2010
(per cent of responding firms weighted by employment)



Source: Central Bank of Malta.

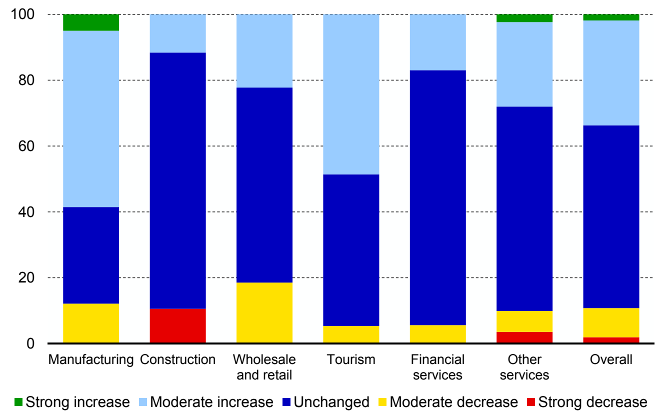
[5] See the European Commission's Survey on Access to Finance for Enterprises (SAFE), details of which are available in Box 1 of this *Annual Report*. Similarly, the relatively high interest rate on loans to businesses in Malta was emphasised by Professor J. Bonnici in a speech entitled "Achieving Malta's potential growth in challenging times", published in *Quarterly Review* 2013:3, Central Bank of Malta.

[6] At a sectoral level, the increase in total costs was slightly more pronounced in the financial, tourism and other service industries compared with construction, manufacturing, wholesale and retail sectors. Some companies in the latter sectors even reported a drop in total costs, especially in the manufacturing sector, possibly reflecting ongoing restructuring efforts to become more competitive.

[7] Micallef, B. and Gauci, T., "Interest rate pass-through in Malta", *Quarterly Review* 2014:1, Central Bank of Malta.

labour costs were also due to a rise in the number of permanent employees, while 33.0% reported additional temporary or fixed-term employees. According to the survey, hours worked per employee remained broadly unchanged during the reference period, although around 20% of firms reported a modest rise in hours. These results provide further evidence of the robust performance of the domestic labour market after the crisis, with average employment growth exceeding pre-crisis growth rates. Employment growth was also broad-based across sectors, with the exception of manufacturing.[8]

Chart 2
AVERAGE PRODUCTIVITY PER EMPLOYEE COMPARED WITH LABOUR COSTS
(per cent of responding firms weighted by employment)



Source: Central Bank of Malta.

Increases in costs, however, were matched or even exceeded by gains in labour productivity (see Chart 2). Around one-third of firms reported that growth in productivity per employee exceeded labour costs, with the improvement in productivity being especially pronounced in manufacturing and tourism. This result is at odds with official statistics that point to a sharp deterioration in labour productivity after the crisis. This could be, to a certain extent, the result of the difficulty of accurately measuring output in an increasingly service-oriented economy.[9]

Labour force adjustments

Around 80% of firms reported that they did not need to significantly reduce their labour input or alter its composition between 2010 and 2013. Manufacturing was the only exception, with half the respondents stating that they were forced to make adjustments to their workforce during the reference period.

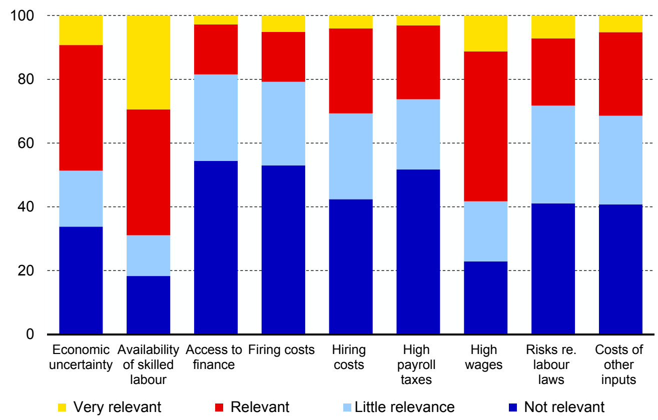
Freezing or reducing new hires were the most commonly used measures by manufacturing firms to adjust their labour force. This approach was used by 85.0% of firms in the sector, with 29.0% of them reporting that they have "strongly" used this option. Other commonly used strategies were the reduction of agency workers and working hours, with both strategies being used either "moderately" or "strongly" by around a third of the firms.[10] Only slightly less than 15% resorted to laying off employees during this period.

The survey also asked firms to determine the main obstacles they faced when hiring workers on a permanent, open-ended contract (see Chart 3). The availability of skilled labour was the most relevant factor, with close to 70% of respondents considering labour shortages as "relevant" or "very relevant". This finding is in line with conclusions in the National Employment Policy published in 2014, which identified the mismatch between demand and supply of skills as one of the main challenges

[8] The decline in employment in manufacturing is a long-term factor that started before the onset of the financial crisis.
[9] Micallef, B., "Labour market resilience in Malta", *Quarterly Review* 2013:1, Central Bank of Malta.
[10] Agency workers are employees that are not on the payroll of the firm, such as consultants or employees that are officially registered with a different company.

facing the Maltese labour market.[11] Other important factors that employers consider when hiring staff are wages and economic uncertainty, with 58.0% and 49.0% of firms, respectively, regarding these two factors as "relevant" or "very relevant". In contrast, most firms do not consider access to finance as a relevant factor in hiring workers, with a further 27.0% claiming that it is only of little relevance.

Chart 3
RELEVANCE OF FACTORS IN HIRING WORKERS WITH PERMANENT OPEN-ENDED CONTRACT
(per cent of firms weighted by employment)



Source: Central Bank of Malta.

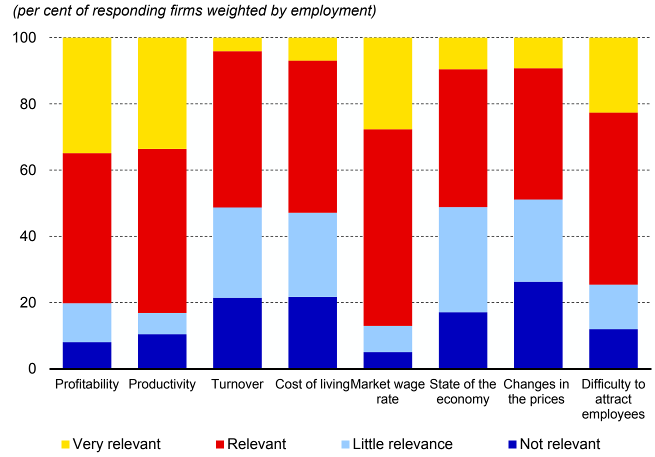
Wage setting and wage changes

Respondents were also asked to indicate the frequency and type of wage changes that occurred during the reference period. Wage bargaining takes place at firm level and almost all firms stated that changes occurred annually. This is not surprising given the obligation to implement the statutory cost-of-living adjustment mechanism.[12]

The survey results suggest that around 23% of employees were covered by a collective wage agreement in 2013. This represents a significant decline from the previous WDN survey, which had reported coverage at 28.6% in 2008. This is in line with the decline in trade union membership in recent decades. For instance, a separate study finds that the proportion of private sector employees covered by collective agreements declined from almost 33% in 1995 to 26.7% in 2008.[13] At a sectoral level, the employees covered by a collective agreement are mainly concentrated in manufacturing and financial services.

Firms were also asked to assess the relevance of a number of factors which they consider when setting wages (see Chart 4). More than 85% of respondents identified the market wage as a "relevant" or

Chart 4
RELEVANCE FOR WAGE SETTING DECISIONS
(per cent of responding firms weighted by employment)



Source: Central Bank of Malta.

[11] Further details on the National Employment Policy can be found at: http://education.gov.mt/employment/Documents/EMPLOYMENT%20POLICY%20DOC%20sml.pdf

[12] Only a small percentage of firms, around 2%, change the base wage more than once a year. These were mainly concentrated in the manufacturing and financial sectors.

[13] Baldacchino, G. and Gatt, R., "Thirteen years later: Trade unions in the Maltese private sector revisited", *Review*, No 40, Bank of Valletta, Autumn 2009.

"very relevant" consideration in the wage-setting process, reflecting the need to remain competitive to attract talent. The firm's profitability, labour productivity and difficulties in attracting employees were also very important factors. Other considerations, such as turnover, the cost-of-living, the state of the domestic economy and changes in prices were deemed to be less relevant.

Price setting and price changes

Price-setting behaviour in Malta varies on whether the main market served by the firm is domestic or international. Overall, around 60% of sales were oriented to the domestic market, with the remaining 40% taking place abroad.

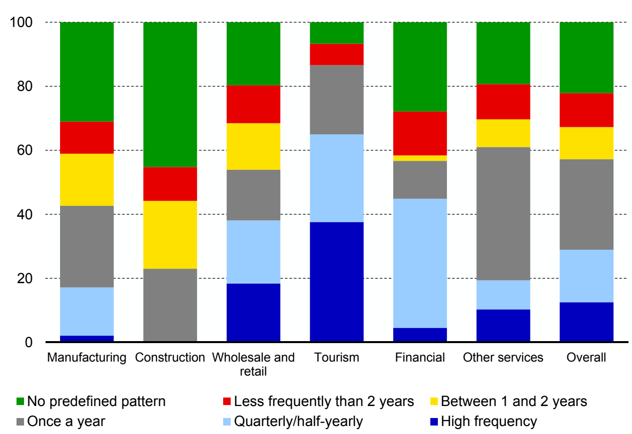
With regard to pricing in the domestic market, around 34% of firms set prices according to costs and a self-determined profit margin. Another 30% set prices following their main competitors while 18.0% negotiate their prices with individual customers.[14]

In contrast, in international markets the share of firms that set prices as a mark-up over costs declines to 24.0%. In addition, around 25% of firms are not autonomous in setting their prices in foreign markets, mostly because prices are set by the parent company. This behaviour is especially common in the manufacturing sector. Negotiating the price with individual customers is another common pricing approach adopted by 26.0% of firms. This strategy is more prevalent in the trading sector. The remaining 25.0% of firms set prices in response to those of competitors.

As expected, respondents reported a high degree of heterogeneity regarding the frequency of price setting, with sector-specific characteristics playing an important role (see Chart 5). For instance, in the tourism industry, more than 30% of respondents change prices at a high frequency, reflecting the prevalence of internet booking for hoteliers. Within this sector, which consists mainly of hotels and restaurants, more than 85% change their prices at least annually. In the wholesale and retail sector, slightly more than 50% of firms also change their prices at least once a year. Around 40% of firms in the financial sector change their prices every quarter or half-yearly, whereas in other market services, 42% of firms change their prices on an annual basis. Around 45% of respondents in the construction industry do not have a consistent pattern, with prices being primarily determined by the local market, or by the degree of competition, or else prices are negotiated at the beginning of the contract. The share of firms reporting no predefined pricing pattern is also relatively large in manufacturing, above 30%, which could be due, for instance, to prices being set by the parent company at irregular intervals.

As in the 2010 edition, most companies stated that they faced strong or severe competition, whereas very few declared that they faced no competition at all. Most companies considered that the degree of competitive price

Chart 5
FREQUENCY OF PRICE CHANGES ON A REGULAR PATTERN
(per cent of firms weighted by employment)



Source: Central Bank of Malta.

[14] A direct comparison with the 2010 edition of the survey is not straightforward since it distinguished pricing for domestic and foreign markets. However, in that wave, setting prices as a mark-up over costs was the most commonly used pricing strategy, with following the main competitors being the second option.

pressures had increased in the relevant market compared with the situation prevailing before 2010. This finding is in line with results of the SAFE, which ranks competition as the most pressing problem facing Maltese firms in 2014.

Conclusion

Labour market conditions in European countries have differed significantly over the last few years. A better knowledge of the key features and determinants of the wage-setting process, and of the labour market in general, is important for policy makers. From a central banking perspective, this knowledge is important to gauge the effectiveness of the monetary policy transmission process. The links between wages, prices and productivity are also key determinants of competitiveness, which is conducive to economic growth and job creation.

The WDN survey provides valuable information on characteristics of Maltese firms' wage and price-setting behaviour, and on the main changes in the economic environment after the financial crisis. It allows for a deeper understanding of differences across sectors, for instance, in price-setting practices, and facilitates the identification of trends in the labour market, such as the gradual decline in collective bargaining. The survey also provides an alternative source of information to complement official statistics on selected labour market issues, such as differences in sectoral productivity developments and skill mismatches.

Going forward, the results from this survey, together with those from other EU countries, will be examined to identify key lessons for policy analysis and research purposes. A better understanding of linkages between the financial sector and the labour market, and the identification of factors that could help explain cross-country differences observed in the aftermath of the financial crisis, are promising areas of research.